



# PHARMACEUTICAL HISTORIAN

Vol. 15 No. 1  
March 1985 £1

Newsletter of the BRITISH SOCIETY FOR THE HISTORY OF PHARMACY

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## Diary Dates

### March 21

**Foundation Lecture**, Speaker, Mr C.G. Drummond, FPS on "Surgeon Apothecaries in Edinburgh in the 17th and early 18th centuries."

### April 19-21

**Spring Conference**, at The Belfry Conference Centre, Brimpton Grange, Milton Common, Oxford OX9 2JW. The centre is a few miles from Oxford and about 200 yards from exit 7 from the M40.

Rooms have *en suite* bathroom, telephone, radio, colour television and tea and coffee making facilities.

Cost, £65 for the weekend.

### May 9

Evening visit to the Wellcome Institute for The History of Medicine, 183 Euston Road, London NW1, at 7.30 p.m. Speaker Mr E.J. Freeman, Librarian and Deputy Director.

### September 12

**British Pharmaceutical Conference** is to be held in Leeds and the BSHP History Session has been arranged for the afternoon of September 12.



### Treasurer

At the committee meeting held on January 14, Mr G. Gunthorpe was appointed treasurer. Mr Gunthorpe has been a member of the Society for a number of years and with Mrs Gunthorpe has regularly attended BSHP meetings and conferences.

### Conference 1986

Norwich is the proposed centre for the 1986 Spring Conference, the committee is investigating the facilities available at various centres.



Kate Arnold-Forster has been appointed Museum Officer of the PSGB. Before joining the Society in September 1984, her background has been in museum work as Assistant Curator of the Museum of the Order of St John. She has an MA in Modern History from Wadham College, Oxford and has attended postgraduate courses in Museum Studies at Leicester University. Kate has a very busy programme ahead carrying out a three-year project on the museum collection.

#### Congratulations



To Mairead MacKenzie, assistant librarian, Pharmaceutical Society of Great Britain who is well known to many BSHP members. Miss MacKenzie trained at the School of Librarianship, Robert Gordon's Institute of Technology, Aberdeen. After qualifying she spent two years working in Kenya as a V.S.O. librarian before joining the Pharmaceutical Society in 1978. She was appointed to her present position in 1980. Recently Miss MacKenzie was awarded the Diploma in the History of Medicine of the Society of Apothecaries.

#### Russian pharmacy

Mr R C Fayle has been studying the history of Russian pharmacy and has collected "an enormous volume of material". He believes he now has virtually everything that is available in modern publications and in source works. If any member would like any information on the subject he would be pleased to help. Correspondence should initially be addressed to Mr Fayle c/o BSHP, 36 York Place, Edinburgh EH1 3HU.

## Historical Milestones\*

By R. Dickinson

Anyone who is actively concerned with the way in which pharmacy is practised today and with how it should develop in the future, must be aware of the historical reasons for the current circumstances of the profession. However, rather than attempt to a comprehensive survey of the history of pharmacy, I have picked out a selection of milestones which, in my view, were responsible for some of the most significant characteristics of present day pharmacy, and which might give a pointer to the most sensible policies for the future.

I should point out that my selection of events will in no way be as comprehensive as *The Milestones in Pharmacy* published by Leslie Matthews in 1980. While acknowledging this and other publications as source material for my own few milestones, I take full responsibility for some of the extrapolations that I make when linking the historical events with present day and future pharmacy practice.

First of all, and because it has the longest history and engages the activities of most pharmacists, I intend to look at what is now called community pharmacy, and what is described in the 1968 Medicines Act as "Retail Pharmacy Businesses". The features which interest me particularly and upon which policy for the future has to be based are:-

- (a) The professional activities in community pharmacies, namely the dispensing of the vast majority of the nation's prescriptions (the exceptions being the limitations in rural areas); the sale of medicines, poisons, and health related products; and the advisory service in response to symptoms described by members of the public.
- (b) The ownership of pharmacies by all manner of corporate bodies as well as by pharmacists.
- (c) The significant non-professional proportion of pharmacy sales, and the acceptance of cosmetics and photographic goods as being traditional activities within pharmacies.

In this country we can trace the beginning of a profession involved with the dispensing and supply of medicines, and separate from the practice of medicine, from the appointment of the first Royal Apothecary by King John in 1307, by the subsequent inclusion of apothecaries in the Company of Grocers and then by the formation in 1607 of the Society of Apothecaries. The fact that most of the apothecaries in this country eventually became medical practitioners and were replaced by chemists and druggists, does not detract from the principle which was being established in many countries, namely that separate professions were needed for, on the one hand the practice of medicine and on the other, the practice of pharmacy.

#### The "Rose Case"

The creation of the Society of Apothecaries did not of course remove all the difficulties between medicine and pharmacy. Indeed the apothecaries were criticised by the College of

\* abstract from a paper given in London at a joint meetings of BSHP, PSGB and St. John Historical Society on February 14.

Physicians of London, for giving advice and medicines. However, the matter was tested in 1703 when the College claimed penalties against an apothecary, William Rose for practising as a physician. The House of Lords judgement in this case clearly established that apothecaries could give advice provided they did not charge for it, but charged only for the medicines which were sold. This bears a strong relationship to the current activity of community pharmacists in responding to symptoms which are described to them, either by giving advice alone, or advice with the sale of medicine. As recently as 1979 the medical profession, in the form of the British Medical Association, confirmed its agreement to these activities of the community pharmacists in a joint statement following a meeting with the Pharmaceutical Society, which included the following:

*"The meeting noted that traditionally pharmacists gave advice, with or without the supply of medicine, when symptoms were described in pharmacies, and acknowledged the contribution of this activity to the provision of primary health care generally. The symptoms of several minor ailments were relieved in this way, thereby reducing the calls on the general medical practitioners services and, in other cases, patients were referred for medical advice, either immediately or when short term symptomatic treatment proved to be inadequate".*

The representatives of the BMA were well aware that doctors could not hope to deal with every health enquiry within the circumstances of our National Health Service, and they also recognised that pharmacists were careful not to deal with any symptom which might indicate a serious illness and the need for a medical consultation. Of course, the traditional tensions between the two professions are still likely to re-emerge when matters arise that might suggest that pharmacists intend to extend their role into medicine, just as the apothecaries did in earlier times. However, this does not preclude legitimate developments that can take place within the traditional activity that pharmacists have undertaken when dealing directly with members of the public. I speak of course of some extension of the list of medicines that are available to pharmacists for supply when giving this service. The nature of the service itself need not change, but it can be improved through the use of careful selection of products currently restricted to prescriptions, perhaps used under specially controlled circumstances.

One feature of the "Rose" case is not particularly attractive to modern pharmacists, namely the injunction that apothecaries should not charge for any advice given. Happily the time spent on giving advice in relation to dispensed medicines is recognised within the cost enquiries linked to the remuneration of contractors in the health service. What should now be recognised, both in relation to remuneration and to policies on the location of pharmacies, is that the advice given in relation to symptoms, particularly when no medicine is supplied, is a positive, albeit indirect contribution to the primary health care service, and should be recognised as such within National Health Service negotiations.

The principal professional activity of pharmacists is, of course, dispensing, that is supplying a medicine on the order of a physician. Until the beginning of the 20th century, while physicians were accusing apothecaries, and more lately chemists and druggists, of dabbling in the practice of

medicine, the physicians themselves were quite happy to dispense their own prescriptions. The real breakthrough in establishing dispensing as the prerogative of pharmacists came with the 1911 National Health Insurance Act. The provisions of that Act were extended to about half of the population, by virtue of an "earnings limit" above which a person could not enter the scheme. For those within the scheme it was made clear that doctors were to prescribe and pharmacists to dispense, except where patients lived more than a stated distance from a pharmacy in rural areas. Some of the parameters of the current arrangements for rural dispensing date back to the conditions introduced in the 1911 Act, which gives some considerable force to pharmacy's contention that arrangements such as the one mile limit are most certainly out of date.

On the broader question of who should normally be responsible for dispensing, the principles of the 1911 Act were extended to the population as a whole when the National Health Service Act was introduced in 1946.

These two Acts were indeed significant milestones because, linked with the chemotherapeutic revolution and the vast increase in manufactured medicines, they meant that the number and the value of prescriptions dispensed by pharmacists increased enormously. The establishment of dispensing as the major professional role of pharmacists did however have some unhappy effects on the professional advisory role. Under the National Health Service Act the whole population was able to have free medical consultations, which led to a tendency to take even minor symptoms to the doctor. At the same time pharmacists found that they needed to be engaged almost full-time within the dispensary and, in many cases, advice on symptoms was delegated to unqualified assistants. However, more recently the need to regularise medical practice within the Health Service by means of appointments systems and the development of group practices, not to mention various national campaigns, has led the general public to rely more on the pharmacist for advice on minor ailments. At the same time, pharmacists have come to realise that the actual mechanics of dispensing do not require the attention of a highly trained health professional, except in ensuring that the prescriptions have been properly written and that the mechanical operations are properly and accurately carried out. We are now seeing the re-emergence of the pharmacist into the public part of the premises and into direct contact with those who need advice on both medicine sales and prescriptions. There is no doubt that this is where the pharmacist in community practice must concentrate his efforts in the future if the profession is to give the service that the public now need and for which pharmacists are now educated and trained.

### Client relationship

One of the hallmarks of a profession is the client relationship and, in the future, when many of pharmacy's traditional activities are carried out by the products of our new technologies, our survival as a profession will depend upon the personal service given by community pharmacists — to the public and to medical practitioners. I am not suggesting that we should take the historical pathway of most of the apothecaries. Even if we were able to, we would be absorbed into the medical profession, just as they were.



Pharmacy must survive on its own, distinctive, personal and readily accessible service based on our knowledge of the constituents of medicines, how they are formulated and how they act. We must learn from history, maintain and develop our pharmaceutical knowledge base and provide our own unique service, within the community as well as elsewhere.

There is no doubt that an extremely important factor in the development of community pharmacy in Great Britain, and indeed throughout the former Empire and colonies, has been the significant proportion of commercial, non-professional activities, carried out in most establishments. This is where I will embark upon assumptions which might not be made within the discipline of historians, but which I suggest are reasonable for someone within an interest in history. Where then are the roots of this commercial activity?

I believe that they lie in that period spanning the 17th and 18th centuries, when many apothecaries moved into what we now describe as general practice medicine, to fill the gap left by physicians who, for one reason or another, concentrated their attention on the more privileged classes. Although a few apothecaries did continue with their traditional activity, this was largely taken over by the chemists and druggists who were already established as traders. Prior to the establishment of the Pharmaceutical Society in 1841, there was intense competition between the various groups involved in the sale of drugs and medicines. This was probably the era in which commercial competitiveness and the consequent tendency to expand inventories, was actually born. Certainly when we look to other countries where the direct line of descent is from the apothecaries to modern day pharmacists, these commercial tendencies are much less evident.

### Commercial activities

Among the earliest non-pharmaceutical, commercial activities — which are now regarded as traditional to pharmacy in Great Britain, were toiletries and cosmetics, and then photographic goods. It is certainly not surprising that those early pharmacists were the people who had the necessary skills to prepare toiletries and cosmetics within their premises; the same skills being needed to prepare the various types of medicines. Similarly, at the beginning of the 19th century, with their knowledge of the basic sciences, it is not surprising that pharmacists took an interest in the processes which were involved in the fast developing area of photography. Indeed in 1891 in a lecture on photography to the Brighton Junior Association of Pharmacy, a member of the Brighton Photography Society expressed the view that while the scope of the pharmacy examinations should not be extended to embrace the substances and reactions associated with photography, the subject offered a splendid field for the practical application of the knowledge which had been acquired by those who had qualified as pharmacists.

When in due course both cosmetics and photographic goods were manufactured industrially, the pharmacy continued to be regarded as the traditional retail outlet for these products. However as time went on, and bearing in mind that pharmacy now had a tradition of commercial competitiveness, it is also not surprising that the range of products was gradually extended in some premises, particularly in the larger company pharmacies.

I now jump through history to 1967, when the House of Lords decision in the case of the *Pharmaceutical Society versus Dickson* firmly established that non-professional commercial activities would continue to be part of British community pharmacy. It did so by determining that the Society could not circumscribe the commercial activities, even as a matter of professional conduct in new pharmacies. It was held that the Society's concern about commercial activities was restricted to situations in which those activities impinged upon the professional activities. Indeed even if the Society had won that case, it had in mind the maintenance of the traditional cosmetic and photographic trade. With this last major milestone in relation to commercial activities, there is no real prospect of any significant development of solely professional establishments in this country. Where then should the profession be concentrating its efforts in the future?

### High standards

In my view the future lies in ensuring that within any community pharmacy premises or within any establishment that contains a community pharmacy or department, steps must be taken to ensure that within the part of the premises devoted to a pharmaceutical service, embracing dispensing and the sale of medicines, the environmental conditions must be controlled to a high standard. Additionally, the attitude of the pharmacists and other staff must be such that the public can have no doubt, both from the physical appearance of the premises and the nature of the service provided, that pharmacy is an integral part of the primary health care service. If this is achieved in small pharmacies, then it is virtually certain that the remainder of the premises which is involved with other commercial activities, will soon observe the same environmental standards. In larger premises, the pharmacy or pharmaceutical department will stand out from the other commercial activities. If pharmacy is to progress as a health profession in the community we must not allow the professional part of the premises to be absorbed into the commercial ambience of other activities.

Pharmacists should continue to be readily accessible to the public in establishments which are not part of clinical or institutional health care and which therefore provide an environment free from the tensions that are created in surgeries or hospitals. At the same time, the nature of the premises should clearly indicate that the pharmaceutical service is not part of the other commercial activities, being based on care for the client and not maximising commercial profits.

Turning to the ownership of pharmacies, the 1880 case of the *Pharmaceutical Society v The London and Provincial Supply Association Ltd.*, determined that pharmacies could be owned by limited liability companies, provided each employed a qualified Chemist and Druggist for the sale of poisons. The statutory support for that contention came in the Poisons and Pharmacy Act of 1908, and has been re-enacted in all subsequent legislation up to and including the 1968 Medicines Act. So here again we differ from a number of other countries, where pharmacies can only be owned by pharmacists. Of course, there are members of the profession who feel most strongly that the legislation should be changed to remove all non-pharmaceutical control from community pharmacy. However, looking at the historical legislative milestones, and, perhaps more importantly, at the standard



of service provided by many corporate bodies when compared to the service provided by some pharmacies in the so called "independent sector", the realistic view must be that legislators will not accept a case to put the clock back. Rather than devote energy towards what might have been, the profession will be best served by an acceptance of the current ownership arrangements for the foreseeable future and then by concentrating on the development of pharmaceutical control within corporate ownership. If non-pharmaceutical interventions are adversely affecting the professional service, then arrangements must be introduced to prevent this, rather than rely on a hope to remove the possibility by excluding corporate ownership.

Another aspect of community pharmacy is the absence of control over the location of pharmacies. The fact that this has not existed in the past is, I am sure, due to the aspects of commercial competitiveness which I have already described within the development of pharmacy. This is one situation which we certainly must demonstrate to legislators as being against the public interest. It has become so, primarily because of the developments that have occurred within the medical profession where more and more doctors are practising from group surgeries, leaving considerable areas without immediate health care advice, unless it is provided by pharmacies. We must point out that when doctors were well distributed throughout the community and pharmacies were located near to those surgeries, the public had two sources of health care advice close at hand. If some control over location is not now introduced, we will continue to have pharmacies located near to surgeries, but in the current circumstances, there will be considerable areas with neither a surgery nor a pharmacy close at hand. The main task is to persuade the Department of Health that facilities for dispensing prescriptions which arise from domiciliary visits by the doctor, and facilities for providing easily accessible professional advice on minor ailments, are both as important a contribution to the health service as an efficient dispensing service in close proximity to surgery buildings.

### Pharmacists in hospitals

I would now like to turn to hospital pharmacy. We know from authors such as Dr. T.D. Whittet that pharmacy, in some form or another, has been practised in hospitals for centuries. Certainly there are mentions of apothecaries in London hospitals during the 16th century. I think it is fair to say that up to the mid 20th century, with a few notable exceptions in teaching hospitals, most hospital pharmacists were engaged solely in providing a scientific supply service. They gave a manufacturing dispensing and supply service from within a department, the location of which signified its classification by the hospital authorities as a "non clinical supply service".

An important milestone was the introduction of a ward pharmacy service in the Aberdeen General Hospitals, in the mid-60s. I am sure that our colleague, Graham Calder, then Group Chief Pharmacist in Aberdeen and now Chief Pharmacist to the Scottish Home and Health Department, will not mind being mentioned in the context of a historical milestone. After all, history is always in the making. This system for prescribing and administering medicines heralded the introduction of ward pharmacy in Great Britain, which was perhaps the most significant change that has occurred in the hospital pharmacy service. Pharmacists are now involved

in a whole variety of arrangements associated with the medicinal treatment of patients at ward level. I am personally delighted that in this country we have not developed these services to the extremes that occur in some American hospitals. The clinical pharmacy service in British hospitals is developing steadily, by prudent trial and error, and in this way I am convinced that it will make a lasting contribution to the overall hospital service. In his address to the College of Pharmacy Practice recently, Professor Peter Parish warned clinical pharmacists that if they developed a service based on aspects of medical knowledge, then in due course they would be absorbed into the medical profession. His contention, as was mine earlier in relation to community pharmacy, was that our patient services must represent pharmaceutical care and not an aspect of medical care. I share this view. There will be ample scope for a pharmaceutical contribution within the ward team.

### Reorganisation

The next two milestones were the Noel Hall Report and NHS reorganisation which occurred in the first part of 1970s. They led to the hospital pharmaceutical service being organised on a rational basis, with certain aspects covering more than one hospital. This enabled the development of careers and specialities and, together with the growth of clinical pharmacy, seemed to herald a golden future for this section of the profession.

However, the more recent milestones, namely the second reorganisation and the Griffith Report on General Management, represent obstacles which have to be overcome. It is imperative that they should not be allowed to dissipate the organisational and speciality benefits of the Noel Hall Report. The autonomy at district, and more particularly at unit level must not stand in the way of developing services and training programmes at the appropriate level, sometimes district, regional and occasionally national. Certainly, appropriate training arrangements must be maintained, if the steady development of clinical pharmacy services is to continue.

### Industrial pharmacy

Finally, I would like to mention industrial pharmacy and link this with educational milestones. Many of us are concerned that pharmacists are occupying fewer senior positions within the pharmaceutical industry, and even have to share with other disciplines eligibility to act as qualified persons responsible for the standard of each batch of products or preparations that are released. In Europe, although they operate under the same EEC Directives, pharmacists are maintaining their positions of responsibility, and are to be found in considerable numbers of manufacturing companies.

One possible reason for the situation in Great Britain could well be the development of pharmaceutical education in the 19th century. In fact there was virtually no development in this country during that time, when much of the pharmaceutical activity was being undertaken by chemists and druggists, in place of the apothecaries. Indeed, it was not until the formation of the Pharmaceutical Society in 1841 — a truly significant milestone — that arrangements were instituted for a standard qualification for all pharmacists and for the introduction of the first systematic

course of pharmaceutical education. However, in France and in other European countries, pharmacy was already established as a university discipline. In this country the Pharmaceutical Society became the examining body and continued to examine the majority of candidates during the first half of the 20th century. Certainly a number of degrees in pharmacy were introduced but it was not until after the 1966 intake that we had all students reading for degrees in pharmacy. In terms of university education British pharmacy therefore lagged behind many European countries, although I suggest that the later introduction of such courses has resulted in our pharmacy degrees being much more reactive to the needs of the modern pharmaceutical sciences.

Nevertheless, when the pharmaceutical industry was rapidly developing in the first part of this century, it might be that the lack of British graduates in pharmacy, compared to other sciences such as chemistry, was one of the reasons for pharmacists not acquiring the predominance enjoyed by their European industrial colleagues. Additionally, many of the students entering the pharmacy courses were looking for a professional rather, than an industrial career, and even those that were not, were often attracted by short-term financial gains in, for example, community pharmacy.

Whatever the historical reasons might have been, we must nevertheless work from the situation that has developed from all of these factors. Pharmacists are in direct competition with several other disciplines for many positions within the industry. Recently we have encouraged pharmacy students to take a renewed interest in such a career. The next essential task is to make sure that the employers are fully aware of the nature of the education and training of a pharmacist, and the fact that in consequence he is the only graduate who can have full understanding of all aspects of the manufacture of medicines and therefore is in a unique position to relate his particular specialised activity to those of his colleagues. This must be shown to be of great value in an industry in which all too often it would appear that the consequences of actions in some departments on the overall industrial effort are not understood in time. If this message can be conveyed, perhaps through inviting employers into the schools of pharmacy, the pharmacist's position in industry should be maintained, and should stand every prospect of being improved.

I said at the outset that I would only be selecting a few historical milestones, and the ones I have chosen have, to my mind, had a significant effect on our development so far. No doubt some of you may have different choices or interpretations.

## Spice Dishes and Spice Plates

By Leslie G. Matthews

Spice dishes are among the rarities attracting the attention of those who have a liking for old silver. Medieval examples are seldom seen and the occasional Stuart or Georgian example in the sale rooms gives rise to a spirited contest resulting in four figure bids. The spice dish of the late Tudor or early Stuart period often took the form of a scallop shell on shell feet and was made either in silver or silver gilt (fig. 1) whereas those from the 14th to the 16th centuries, if made for royalty, were more resplendent, often in gold embellished with precious stones. This was the kind recorded in the inventory of King Henry V taken in 1423, viz., "The large Spice Plate of gold, decorated with a ruby in the beak of an eagle, for the cover of the said spice plate, valued at £10; also 12 rubies and sapphires round the cover, valued at £12; also 7 pearls, £1; also 3 pearls in the beaks of 3 eagles, value £5; 24 clusters (troches), each of 4 pearls and one diamond (each cluster 26s), value £32. Other rubies, pearls and sapphires — in total valued at £602.5d" — a truly remarkable piece! There is mention in the inventory too, of various kinds of spice plates, weighing in all 15lb. 10 oz.

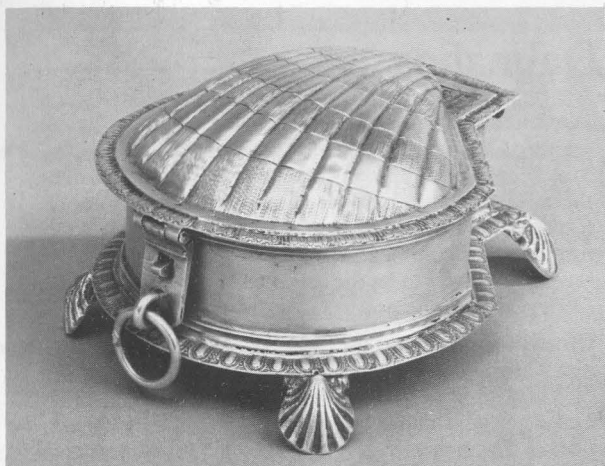
Spice dishes were regularly used to decorate the table of the wealthy during the medieval period. They were valuable enough to be listed as part of the jewels and plate. These dishes were used chiefly for the lozenges or sugar-coated dragées made with spices or for the spiced sweetmeats that served as "sweets" or digestives after the heavy meals.

There can be few surviving medieval examples even in accessible museums: some are known to us by the written descriptions, for example, in the list of jewels belonging to King Edward I in 1300 there were four large silver footed spice dishes — "iiii plata argentis magna cum pede

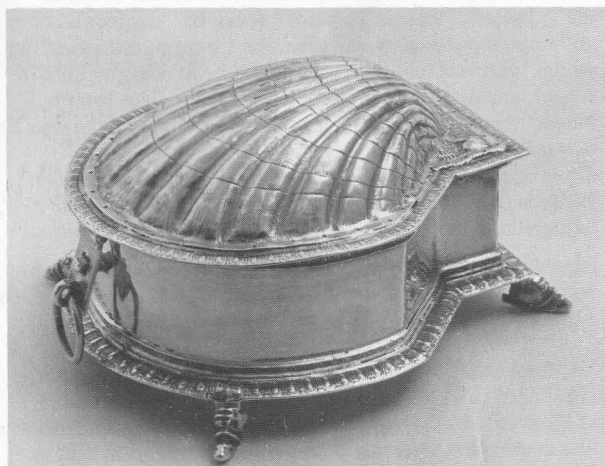
specibus", and in bequeathing silver vessels to the Abbot of Beighen of Frant, Sussex in 1353, Bartholomew Denmers, a 'corder' of the City of London, included a "spicedish". Wills of the 15th century record spice dishes as important gifts. King John of France, a prisoner in England from 1357 to 1360, brought with him his own dragouers, i.e. containers for dragées. These, of sugar-almond shape, were made for the King by his own spicer (or apothecary) who was one of the royal party. Such containers were either of silver or silver gilt; some were jewelled and one with an enamelled gilt cover contained a silver and crystal spoon. They had to be listed when the royal Treasurer handed them over to his successor.

The inventory of the effects of Henry VIII, taken in the first year of Edward VI's reign, 1546-7, includes numerous spice dishes, some footed, each weighing from 10 to 19 oz. Some were gilt, with "maiden hedges". A few, described as "spice plate dishes", weighed as much as 50 oz. each; Four of them were "guilt engraved about the brims, enamelled in their bottomes, one having a cameowe engraved in the bushell (? rim), another having a glasse set in the bushell with image therine paynted". In addition there were ornamented boxes and spice plates, some weighing not less than 30 oz. each. Upon some of the plates the King's arms were engraved; many are noted as footed plates.

During the reigns of the Tudors the post of Serjeant of the Confectionary was held by the leading royal apothecary and it was one of his duties to see that the royal table was supplied with sweetmeats, in the form of jellies, comfits, sugared fruits and lozenges or dragées, then much in favour. The lozenges were made of powered spices, aniseed,



Spice Dish, Jacobean, 1619 (By courtesy of H. R. Jessop Ltd., London, Private collection).



Spice Dish, Jacobean, 1616 (City Museum and Art Gallery, Birmingham. Reproduced by permission).

cinnamon, ginger, etc., sometimes flavoured with musk, worked into a thick paste with sugar, water or mucilage. This was rolled flat, cut into squares or ovals and air dried. The sugar-coated dragées contained similar spices. Both lozenges and dragées were served on the spice dishes mentioned in the royal inventories.

The lengthy list of *Jewels and Plate of Queen Elizabeth I* (A. Jeffries Collins, British Museum, 1955) records no fewer than 150 spice dishes and spice plates. Again some were of silver gilt with enamelled bases. Seven gilt standing spice plates with covers weighed in all 740 ozs. Of the spice plates mentioned, two great plates were "wrot with antiques with the Duke of Somerset's arms in the middle"; twelve footed plates had been forfeited by John Dudley, others were chased and enamelled and many were engraved with the Queen's arms. A number of spice boxes were listed. Alas, none of these seem to have survived — at least none of these or indeed any spice dishes or spice plates are illustrated in *The Queen's Silver* by A.G. Grimwade (*The Connoisseur*, 1953), in which well over 100 items are described.

In examining spice dishes of the Jacobean and Stuart period, Lord Rothermere's handsome gift of silver to the Middle

Temple in 1935 should be mentioned. This included two magnificent spice dishes (or boxes), one of 1598-9 in silver gilt, or scallop shell design, decorated with scrolls and rosettes, on shell feet; the other, bearing a London mark of 1604-5 and the maker's initials 'T I'. The *Apollo Magazine*, September 1935 (XXII, No. 129), commenting on these, refers to an exhibition of old English Plate at Old Seaford House in 1929 when five scallop spice dishes were displayed, all with the same maker's mark 'T I' and dated during the two decades 1600 to 1620. Two elegant spice dishes, one Jacobean, the other Queen Anne, were exhibited at the 1968 Jubilee Exhibition of the British Antique Dealers' Association at the Victoria & Albert Museum. The James I example (fig. 1) was dated 1619 and marked 'T I' with a mullet below. Again this was in the form of a scallop shell on shell feet. A spice dish of almost similar design, dated 1616, with the mark 'T L', having two compartments is in the City Museum & Art Gallery, Birmingham (fig. 2). A Queen Anne specimen bearing a London mark for 1709, was one of a pair made by David Willaune. It has a double lid engraved with the arms of Pochin, of Bourne, Lincs., with gadroon decoration, and is supported on paw feet.

A silver spice dish, Charles I, 1627, on four shell feet, with spreading base stamped with a band of ovolos and with plain sides with shell cover, was sold at Christies in 1969. This bore the engraved initials HB and IK on the base and the maker's mark IP, with a bell below. This was 15 cms in length. With the spice dish was a spoon with leaf shaped bowl, curved stem and hoof finial, engraved with the same initials as the spice dish; the maker's mark? RL had a wallet below.

Spice or sweetmeat dishes repeating the silver designs were made in Sheffield plate, usually with gadroon or drawn wire edges. Among the later spice containers made during the 18th and 19th centuries were small silver nutmeg graters, heartshaped, oval or rectangular, in which the traveller could carry a nutmeg and grate sufficient to spice his food wherever he might dine.

Spice boxes of French design frequently had two compartments with hinged covers, sometimes separated by a nutmeg grater set in the middle. The covers often took the form of a scallop shell, with feet of the same design.

The question is sometimes asked whether silver dishes with covers in the form of a scallop shell should be described as "Spice dishes". There is good warrant for this description. An inventory and appraisal of all the 'Plate now being in the Lower Jewell House of the Tower' taken in August 1649 includes two items — "13 spice plates escallopt, 24 lb. 10 oz @ 5s oz., £72.5s." and "A christall scallop garnished with gold about the foot, crakt, £1.10s." (*Archaeology*, XV, 1806, xxiv, 271 et seq.)

Spice dishes and boxes of the kind described, for the elegant table, are to be distinguished from spice dredgers, akin to sugar casters, and from those for ordinary household use. The household or kitchen variety had several compartments for separate kinds of whole, not powdered, spices. More recently these were of turned wood, one compartment resting upon another, in layers. In the 19th century centrepieces of silver were made having a plateau with spice boxes and receptacles for flowers, pieces not unlike the epergnes of that century. The modern version of a spice box is a round metal box with compartments for each spice.



## Alexander Dalmahoy

I have read Mr Hopkinson's article on Alexander Dalmahoy with great interest, particularly as it links up with some of my own work. According to the Apothecaries' Society records, when Alexander was bound to Mr Francis Dalby for eight years on 3 January 1737, his father William Dalmahoy was already dead, but what unfortunately it does not make clear is whether this Francis Dalby was the same Mr Dalby as was in trouble with the Society some twenty years earlier.

At the court held on 22 January 1719 it was recorded that "Mr Dalby (was) sum'd several times to take his freedom and not appearing, ordered that the Clerk write to him and let him that he will be sued" (MS 8200/5 f.22r.). Ten days later there is the further report "Mr Dalby sum'd for keeping a shop and not freed, says he was sum'd about sixteen years ago and appeared, & not being naturalised the Company refused to admit him and is since naturalised as he confesses. Has time given to the first Tuesday in April next and if refuses to come in (the) Company to proceed against him." Then on 7 April there is the terse note, "Mr Bean Scarlett appear'd for Mr Dalby and said Mr Dalby could not agree to take his freedom." Annoyingly there is no further statement as to whether the Company did proceed against him, or whether Dalby collapsed under the pressure and did 'come in'.

In spite of his English sounding name one assumes that this Mr Dalby was a Continental, probably French, refugee from religious persecution. If he were Dalmahoy's Francis Dalby, then he must have been an old man for the times, at least 66, when Alexander gained his Freedom on 7 January 1745. (MS 8200/7 f.lr.).

As to whether Francis Dalby was the originator of Dalby's Carminative there is some doubt. In 1784, Joseph Dalby, apothecary of Welbeck Street, Marylebone, died, leaving an undated and unwitnessed will which caused some problems for his executor. (Prob.11-1119, f38). The first bequest was to his son Charles Edward who was to receive "my share of the freeholds at Great Sherston, Wiltshire, and £5 a year out of the profits from the sale of my carminative." He continued, "Whereas many years ago I taught my daughter Frances, now wife of Anthony Gell of North Street,

Westminster, gent., to make my invented medicine called Dalby's Carminative ... to preserve for the benefit of such of my children as deserve my attention and who have not by the most wanton indignities and unprovoked insolence forfeited all right and expectancy of any favour or kindness from me. ... I commend to my daughter Frances the secret recipe." She was to be the sole preparer of it and to receive £40 a year from the profits.

Others who came into the category of receiving favours from him were his son James and his daughter Katherine Dalby, who were to have £60 and £12 a year respectively, and his wife Anne who had £32 annually, all to be derived from the sales of the carminative. Other sons had to be content with a mere guinea and a personal remark; Thomas who was a lieutenant in the Royal Navy was told that it was given "as a mark of my gratitude for his dutious behaviour towards me"; Joseph, "now in Jamaica" received "my forgiveness and hope the almighty will give him a better understanding" whilst John was told, "I recommend he makes good use of it", obviously John was in even less favour than Joseph. Nevertheless they did better than his son-in-law who was bequeathed 1d. "as a mark of my approbation of him drawing his sword on me at my table." The youngest son Jacques Davy was to have £10 yearly until he was made a lieutenant in the Navy and for one year afterwards.

Alexander Dalmahoy had many apprentices, some of them with the most curious names, William Charles Diddear (July 1771, premium £200), John Shish Tahourdin (May 1764, £200), John Batten (August 1762, £105), George Hussey (September 1759, £105) Mathew Concawen, (September 1753, £105) and Richard son of Hugh Bickman (October 1747, £105). Perhaps most interesting of all was Dalmahoy's first apprentice, Richard Board who was bound to him in May 1747 and for whom no premium was demanded; he must have been a close relative of his future wife, Elizabeth, daughter of John Board of Paxhill Park, Lindfield. Mr Hopkinson has told us much interesting information about Alexander Dalmahoy, and yet one feels there is much more to find out. For example, what was the future career of all those apprentices?

Juanita Burnby

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The production of this *Pharmaceutical Historian* is borne by



(Winthrop Pharmaceuticals) division of Sterling-Winthrop Group, Guildford, Surrey  
as a gesture to the history of pharmacy

Set and produced by Set Fair, 10-12 Gibbon Road, London SE15 2AS. Telephone 01-732 3841.



# PHARMACEUTICAL HISTORIAN

Vol. 15 No. 2  
June 1985 £1

Universitätsbibliothek  
der  
Technischen Universität  
Braunschweig

Newsletter of the BRITISH SOCIETY FOR THE HISTORY OF PHARMACY

Contributions to the Editor: Arthur Wright F.P.S., D.B.A. · 36 York Place · Edinburgh · EH1 3HU

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## Ag and Vet Records

In connection with the Leeds British Pharmaceutical Conference session on "Ag and Vet Pharmacy", Mr D. W. M. Davidson, 22 Wellmeadow, Blairgowrie, Scotland, is appealing for details, literature, photographs etc of the early days "when pharmacy was the natural source for animal remedies".

## The Foundation Lecture

Another successful meeting, the eighth in the series, when members heard Mr C. G. Drummond's paper on "Edinburgh surgeon-apothecaries." (see p2). The lecture continued the high standard set by previous Foundation lecturers. Once again those present enjoyed the hospitality provided by E. R. Squibb & Sons Ltd. Members of the PSGB staff also contributed to a successful evening, they were involved in the arrangements for the meeting.

## Diary Dates

### September 11

#### British Pharmaceutical Conference Leeds

BSHP History Session has now been arranged for the afternoon of September 11 (revised date).

### February 13, 1986

Joint meeting with the Pharmaceutical Society. Dr I.M. Stead, British Museum. "Lindour Man: An Iron Age Body from a Cheshire Bog".

### Spring Conference

"One of the happiest of Conferences, where everybody seemed to have enjoyed themselves" was some members' description of the Oxford meeting. The majority of members joined the coach trip to Blenheim Palace and throughout the weekend there was praise for all the staff of the Belfry Hotel and its facilities. During the Saturday morning the President and Vice president were invited to meet the Lord Mayor of Oxford and that evening he joined members at the Belfry Hotel for the dinner and stayed to hear Dr Court's talk on the History of Herbal Medicine. The Committee were grateful to The Merrel Organisation for a contribution towards the Conference expenses.



*The Oglander Cabinet (see p. 14)*

# Surgeon-Apothecaries in Edinburgh in 17th and Early 18th Centuries\*

By C. G. Drummond

It was with sorrow that I learned of the great loss this Society has sustained by the passing of that great scholar, Robert Gibson Todd. He was to have addressed this meeting on a 17th century prescription and day-book. When I was asked to speak to you tonight I assented with some hesitation, but deeply conscious of the honour of being asked.

I had accumulated material over the years, some of it of the same period and of a similar nature to that on which Mr. Todd had been working but my story inevitably dealt with my own location.

There had been apothecaries from the time of the Stuart Kings, James II (1431-60) of Scotland having brought them with his court from France. They are also mentioned as having attended Mary, Queen of Scots, at her execution at Fotheringay. It is of interest that they were described as potingers or "pharmaciens".

But I want to start about the middle of the 17th century with the return from war of James Borthwick and Thomas Kincaid, who had accompanied the troops to the Continent. They come home vastly more experienced than they had been on their departure, to find that the fortunes of the Incorporation of Surgeons (and surgeon-barbers) were at a low ebb. They willingly accepted the proposal of Borthwick that they should join forces. Borthwick was a man of considerable influence, was a member of the Town Council, a Commissioner of the Scottish Parliament. Under his influence, the Common Council decreed that "the Surgeons and Apothecaries be erected in one Community", which, with former privileges, were confirmed by Charles II and ratified by Parliament on 22nd August, 1670, as they were sometime after by letters of William and Mary in 1694, with an additional grant of Liberty to practise within the Counties of East, West and Mid Lothian, the shires of Fife, Peebles, Selkirk, Roxburgh and Berwick, which was confirmed by the Scottish Parliament in 1695.

It was soon evident that the union was not entirely harmonious, the physicians making every endeavour to rule both. The simple apothecaries attempted to set up their own organisation — without success — but what was set-up had the advantage of providing an element of stability. All who wished to practise pharmacy in the City had now to submit themselves to examination. Not only was it compulsory to provide evidence of sufficient skill and knowledge, but the drugs offered for sale were subject to inspection. Any substance which was below the required standard was destroyed in the presence of bailies or magistrates who, in company with senior apothecaries, carried out the inspection. From the inception of the College in 1681, pharmacy came under the jurisdiction of the physicians, until 1695. In that year pharmacy was once more united with the surgeons; the physicians stated that they would not in any manner oppose the re-uniting of Surgery and

Pharmacy. From that time onward, the physicians ceased to dispense except in the remote country areas, and it has remained so since. It will be seen that what would now be called "lines of demarcation" were being laid down.

But what of the work of the surgeon-apothecary? A fairly accurate picture of his duties may be gleaned from documents which have survived, some of them almost miraculously. James Borthwick, whose tombstone in Greyfriars Churchyard describes him simply as "Pharmacopoeus", attended the Marchioness of Douglas in the last stages of her life, and from the statement of account it is possible to learn something of his activities.

Borthwick was in frequent attendance from January 15, 1674, until the Lady died about a week later. It is clear also that her ladyship had been under treatment prior to January 15, for the first folio of the account shows a figure brought forward, in the courteous manner of the time:

"Imprimes are accompt given all ye summes of 195:11:00"

Then follow details of the medicines administered. It is not possible to say whether Borthwick prescribed and administered the treatments, or if they were prescribed by one of the physicians and Borthwick was the pharmacist and nothing more. The first item reads: "To my lady a plaister for y navill", at a cost of 16 shillings. The following day there was 2 drachms of oil of amber, in a glass, for 18 shillings — probably as a rub. On the 16th, a clyster (or enema); the 17th brought four separate items. The first was 7 ozs. of cordiall julep, in a glass, at a cost of £2:00:02. (A julep was a mixture); then a plaister betwixt the shoulders; materials for broth, and 8 doses of cordiall powders. 18th — The assault was renewed. A dose of hysteric and purging pills; 2 vesicatory plaisters of the ear; a suppository; 7 ozs. of a cordiall and antihysteric julep. The following day started with a clyster at £1:16 shgs.; a mixture for the "Gumes and rooff of the mouth" and ½ lb. of cataplasme for the sole of the foot — charged £1:10:00. On the 20th — new medication was limited to 12 ozs. of a cordiall and antiscorbutic julep. And so the attack went on, with a spyced Cupp of a Cordiall and antiscorbutic julep on the 26th. Then there comes an ominous silence from the 26th to the 30th, with an entry on the latter date which reads, you may not be surprised to learn: "Ane embowelling and Embalming wt 3 charcloths, powders, Balsams, lotions, oyles and sweet oyles for the coffin, etc. £266:13:04". The total sum of the account is £467:1404, but these are pounds Scots valued at only one-twelfth of the English pound of the period.

The surgeon-apothecaries carried on their business in shops of the street-level of the high tenement properties of the Old Town — the New Town of Edinburgh was still very much a thing of the future. Living conditions were very congested — shops and business premises on the ground floor, a very

\* Abstract from the Foundation Lecture given in the Pharmaceutical Society's House, London on March 21.



mixed bag immediately above, a lower middle class on the next floor, and beyond that there might be an earl or a duke. In fact, as late as 1769, the Canongate boasted among its residents two Dukes, sixteen Earls, seven Barons, seven Judges and thirteen Baronets. Consultation with advocates or physicians would be arranged in tavern or coffee-house, or by home visit.

One surgeon-apothecary who left a detailed journal of his work over a period, unfortunately failed to leave any account of who he in fact was — but I am catching up with him. There is now, I am glad to say, a short leet. I thought I had him by the heels a year or two ago. He had written a detailed description of his findings in a case for a medical journal. It was in the name of one George Balderstone, and I proceeded post haste to consult the original log-book, in the National Library of Scotland, only to find that the book had been begun two weeks after the date of the communication to the medical journal. Despite careful search, the mystery remains unsolved, though everything suggest Balderstone. But the absence of a name does not detract from the fact that here was an apothecary who left detailed notes of the most thorough investigation into the illness of the day. And as I proceeded with my search so did a picture build up of who the people were, how they lived and how, in some cases, they died. At the best they had a precarious hold on life. The case-book yielded up a comprehensive picture of the life of a surgeon-apothecary in the early part of the 18th century, as also of some his illustrious patients. The scene was in the neighbourhood of Dalkeith, about six miles south of Edinburgh, and the patients named suggest that the surgeon-apothecary was held in high regard.

It is possible to follow the course of a disease and its treatment, together with the ultimate outcome in some cases. There are reports of epidemics, of which smallpox was one of the most terrifying, for small communities were almost wiped out. A severe visitation in 1733 is referred to in a diary entry of January 26, 1734. "The smallpox", it reads, "has not yet left us in this country, they had been raging in Edinburgh for some time past and very fatal to several, viz: 3 children of Mr. Guilds, 3 of Mrs. Barclay, Sir James Stuart's uncle, Sir James's nephew and Jamie Stuart also dy'd, etc. also a young man, he was thrice bled, of twenty years of age dy'd. At Newton, there dy'd fourteen only out of a great number, whereof none all most had any kind of physic or bleeding. Just now they are frequent at Cowdon, a little town above this place, but in the town of Dalkeith itself they go on but slowly. Sir William Cockburn's son Markey, he was twice bled in the beginning and once vomited. He was purged with a ptisan of tamarinds and senna on the 8th day. Dy'd on 10th or 11th very suddenly."

Records show that there was an appallingly high death rate among the apprentices to surgeon-apothecaries, a fact which suggests that they accompanied their masters in visiting the sick.

Now for a closer look at the course of the disease. Lord Boyd, a boy of seven years of age, fell victim to the epidemic in 1733. The boy had been playing Picquet when he complained of headache. For 8 days he had complained of what was delicately described as "a worse stomach than usual." Despite his evident sickness, he went to school the following day, but turned heavy and uneasy, and slept on a

desk." He had a very violent headache with dullness and paleness, and in the evening complained of a pain in his back. Took no supper. The account goes on: "I was then called and found his pulse very quick but not strong nor very hard. I immediately caused bleed him about 7 ozs. He bled with a large orifice but turned faintish, though a little before his face was redder and more flushed than usual and his eyes watery and somewhat heavy. He drank a bottle of milk and water during the night and slept not well in the morning".

November 25, 1733 Sunday

This being the third day of the disease, his pulse was still very quick but soft and not very strong, tho' it seemed full. He was transported to another room about 11 o'clock, complained more of the pain in his back and said his head was easier, yet still very giddy so that he could not get up. He never complained of the least nausea far less vomited any as yet, notwithstanding that we gave him a vomit immediately of Pulv. Ipecacuanha gr. XXXV (almost 2.1/2 G). The Ipecac. was given him infused in Honey Water. (Honey water, or Aqua Mellis, which I knew in my early days, contained in addition to the honey, oils of bergamot, clove and sandalwood, a trace of musk, saffron, rose water and orange-flower water — a nectar of the gods).

Dr. Stevenson, an eminent Edinburgh physician, and one of the original fellows of the Royal College, was called in in the evening of the 25th (the third day of the illness). He did not think that the boy required more bleeding. Instructions were given that the maid was to lift him with blankets around him, but the maid appeared not to have understood and the instructions were neglected, perhaps with reason. He was then given a clyster (or enema) and sleeping syrup.

But young Boyd was making progress. By the 9th day he was sitting up in bed and Dr. Wm. Cochrane, a fellow of the College, advised stewed prunes for dinner. He ate frequently next day, was lifted up in his nightgown in the afternoon and sat easily in a chair. At night got no syrup. On the 19th day "he got his physic for the first time, 5 gilt pills containing Pil. coch. and Merc. dul. (Calomel) gr. III. He swallowed two the night before and three this morning early at 5 o'clock that there might not be too great a distance betwixt his does. They purged very easily 6 times." "He took some porridge in the morning and the same dose of pills was repeated on the Tuesday, but did not purge more than three times, so that on Thursday the dose was increased to Pil. coch. gr. XVIII Merc. dulc. gr. IV. These purged him more briskly", you will not be surprised to learn. And there the tale of Lord Boyd ceases, and one must conclude that despite the small pox and the heroic medication, the young man recovered and took to Picquet again.

The country was never free of smallpox. There were simply occasions when it was less active. Among outstanding outbreaks about this time was one in 1740-42, when out of a population of about 40,000 over 2700 died. It is recorded by Thomas Ferguson that the epidemic came at intervals of three or four years and that on average one death in six was from smallpox.

But there were other problems in the practice, and other young men besides Lord Boyd. There was an astute youngster called Robie Rutherford, of whom the apothecary

recorded that "the pills did not purge him above twice, but I had reason to suspect that he had not swallowed them all". Then there is a thumbnail sketch of a Mr. Dunlop, handed down to posterity. It reads: "Mr. Dunlop — a man of lazy, indolent life, much addicted to fuddling himself with spirits. Of a gross and corpulent habit and blanched, dull complexion". One must suppose that Mr. Dunlop had no access to the book.

Life in that quiet countryside seems to have had its distractions. The apothecary was called one morning to minister to the afflictions of the Earl of Dalhousie. He records: "He was troubled with a pain in his back ever since his lady's illness, whether from a strain he got at that time, or a fright, I know not. This morning he had been rubbing it with his stuff which had probably irritated it, and the night before he had been pretty late out at a merry making where they were drinking a great quantity of heavy strong ale". Lord Cockburn, the famous judge, describes just such an evening early in the 18th century in the Inn at Middleton, just outside of Dalkeith. He writes: "The Duke of Buccleuch was living in Dalkeith, Henry Dundas at Melville, Robert Dundas, the Lord Advocate, at Arniston, Hepburn of Clerkington at Middleton; and several of the rest of aristocracy of Midlothian within a few miles; all with their families and luxurious houses; yet they, to the number of twelve or sixteen congregated in this wretched ale-house for freedom and jollity. We found them roaring and singing and laughing, in a low-roofed room, scarcely large enough to hold them, with wooden chairs and a sanded floor. There was plenty of wine, particularly claret, in rapid circulation on the table, but my eye was chiefly attracted by a huge bowl of whisky punch, the steam of which was almost dropping from the roof, while the odour was enough to perfume the whole parish". And so, from such a convivial evening, the Earl and his friends would make their unsteady way home, and it may be imagined that the earl was not the only one to suffer retribution.

And now to the case of Georgie Leslie, who had got the whooping cough or "Kinkhost" as it was called in Scotland, indicating the close relationship between Scotland and Holland and the Low Countries. But whatever it was called Georgie had it. His mother gave him a vomit of 16 grains (1G) of Ipecac. That piece of information suggests it was the practice to keep a vomit in the house as a first line of defence. "It wrought but weakly", so it was afterwards repeated as an infusion with  $\frac{1}{2}$  gr. (30 mg) of Tartar (i.e. tartar emetic, tartarated antimony).

Other diseases rampant at the time were, of course, measles and what we called simply "fever", or common fever. Typhus was always formidable, and gradually it was realised that the condition was rampant where sanitation was worst and overcrowding greatest. Glasgow, in one year alone recorded 4,386 deaths from typhus.

Another scourge of the time was Cholera. Reasons were sought for its spread. In Glasgow, a preacher who announced that the pestilence was evidence of divine displeasure (and was God's reply to a contemporary attempt to push a Deceased Wife's Sister Bill in Parliament) was countered by Lord Ashley's evidence that people with baths and wash-houses had in the main escaped.

Much useful information concerning the habitation of the

Old Town is to be gleaned from documents detailing a Poll Tax which was levied by the Scots Parliament in 1693, to meet the expenses which had accrued in wars. The collection was for making up arrears due to the country and to the Forces. The information relates to the number of people living in each house, their names, their occupations, the valuation for tax purposes and, another form of assessment, the number of hearths in each house. For the extracts from these documents I am indebted to Mrs. Sheila Mitchell who, with her husband, has covered large tracts of Scotland copying inscriptions from tombstones prior to 1855 when registration became compulsory. When I knew them, the Mitchells had amassed a vast amount of history. There was something reminiscent of Scott's "Old Mortality" about it all. Mrs. Mitchell was 90 years old when I met her, and she extracted from the records of the Poll Tax items referring to apothecaries, surgeons and doctors.

One entry concerns the house of Sir Archibald Stevensone, doctor of medicine, and his wife Dame Elizabeth Ramsay. (Stevensone was one of the founders of the College of Physicians, and his names figures in the case-book entires concerning young Lord Boyd and his smallpox).

In the Stevensone entry, against Stevensone's name is the figure of £24, which was an agreed professional fee; his wife 6/-; George and Agnes, his children, 12/-; Liliass Spower (or Spowart) servant £12, termly £1:4/-; Janet Cumming, servant, fee £8, termly 16/-. Then comes the name of Archibald Pitcairne £24 who had married Elizabeth Stevensone, daughter of Sir Archibald Stevensone. She was "valued" at 6/- as was their child whose nurse was listed as £2:00:00.

Archibald Pitcairne, a famous figure in the medical world of the day — and I mean world, for he was made Professor of Medicine in the University of Leyden, where the great Boerhaave was one of his students. But even if Pitcairne had not been the brilliant physician that he was, he would not have remained obscure. He was a Latin scholar and poet and was a staunch Jacobite, and that was not the key to success at that time. His life was one of controversy, and one is left with the impression that the Hanoverian part of society was opposed to Pitcairne and all his works — which is perhaps all right if you are mediocre, but Pitcairne was anything but that. He lies in Greyfriars Churchyard. He bequeathed a jeroboam of wine with instructions that it was to be drunk at the Restoration. The tombstone of Pitcairne stood in need of restoration in 1800 and Professor Andrew Duncan decided that that would fulfil the terms of the bequest, and the jeroboam was broached for the occasion.

There was no attempt to arrange or classify the Poll Tax returns. They are neither alphabetical nor by professions or trades. It appears that they may simply have been collected street by street, tenement by tenement or house by house. Miss Margaret Wood, the late City Archivist, who published details of the Register, states that that could not be proved, for names of closes and wynds, of "lands" and their owners were rare, and that long after this date, everyone knew their neighbours and where they lived and exact addresses were unnecessary. That may be so, but if it was considered necessary to do a little discreet advertising, no chances were taken. For example, Gilbert Laurie, later Lord Provost of the city, placed an advertisement in the Edinburgh Courant

For the Lady Winto Elber  
 R<sup>o</sup>. Pulv. Cor. Peruv. &c.  
 Sign. proinde nomine

For Mr. Elv. Tringle  
 R<sup>o</sup>. Pulv. Cor. Peruv. &c.  
 Syr. Laruoph. q. s. ut s.  
 Elct. cuius cariat qua-  
 ter die quantitate Nuis  
 morchato.

28. Feb. 1733.

Prescriptions of the 18th century

4 Pulv. Ipecacuan gr: XXXV  
 Sig the vomde for Miss  
 Anne Lindsay to be taken to  
 morous morning  
 defecation at Aldes Rac  
 nocte

610 Mr Drummond Shop

Aug. 17, 1737

of 29th January 1754 in the following terms:-

"At his laboratory and sign of the moving head entering by the crooked forestair at the head of Niddry's Wynd, Edinburgh, had just imported a fresh assortment of simple drugs of the best kind. That he prepares himself Chymical and Galenical drugs of all kinds.

He warns the public about others who have the word "Laboratory" in their address". Until a few years ago, I knew that crooked forestair. Laurie was a man of substance. On his retiral, he built himself a substantial Georgian house at Polmont, demolished only few years ago in a "development".

To return to the Poll Tax, in certain cases there was no wage and the servants were kept out of "charitie". The documents are of intense interest, disclosing occupations, and from that it is possible to abstract physicians, surgeons, surgeon-apothecaries and druggists, some of whom in their own day and since, have provided names of great importance. They, as professional men, were assessed at a flat rate, along with advocates, writers to the signet, commissaries and others.

One of the most outstanding in the list is Sir Robert Sibbald. He was born in 1641, studied theology in Edinburgh, and at the age of 19 went to Leyden where he studied botany; thereafter to Paris and later to Angiers, where he acquired his degree. When in London he was made Honorary Fellow of the College of Physicians in that city. Prince James, Duke of York, used his influence, along with that of Sir Charles Scarborough to found a College of Physicians in Edinburgh

which goal was not achieved without strong opposition from the surgeons and the Town Council of Edinburgh, as well as the university and the bishops. Sibbald was one of the compilers of the first edition of the Edinburgh Pharmacopoeia published in 1699.

While it would be possible to delve into that book, I should prefer to refer to some prescription our ancestors were coping with in the 1730's. These documents were discovered in an attic in the Lawnmarket. They had been dispensed in the shop of Mr. Drummond, who after extensive search, proved to be Adam Drummond, of Megginch in Perthshire. His progress as a surgeon-apothecary followed the general pattern of the period. He attended local village school at Errol and so began a journey which took him to the University of St. Andrews at the age of 16. From there to Edinburgh to serve his apprenticeship with Thomas Edgar, surgeon-apothecary, and thence to Holland, where he studied at Leyden. On his return to Edinburgh he set up a pharmacy in the Lawnmarket in 1699, becoming joint professor of anatomy in the Incorporation of Surgeons. He trained apprentices for periods varying from 5 to 7 years, with premiums up to 864/10 Scots (= £72 in English terms).

I have referred to the incidence of epidemic about that time. Adam Drummond was one of 13 children, of whom no fewer than twelve were stricken with smallpox at one and the same time.



# A History of Herbal Medicine\*

By W. E. COURT

The alleviation of human suffering has been the aim of healers since the dawn of civilisation. Once the clear distinction between food plants essential to the maintenance of life and toxic plants destructive to life was established, specialists in the various communities sought to exploit by trial and error plants which could cure, heal or help ailing persons. The specialist member who thus emerged with knowledge of the healing arts bore many titles from wise woman, sage, voodoo man and witch doctor to herbalist, apothecary and physician.

Although magic and superstition were involved in the early use of medicinal plants, empirical observation was the main route of progress as there was no knowledge of causal mechanisms.

Medicinal plants were recorded as early as B.C. 2800 in the *Pen Ts'ao*, a Chinese treatise by Shen Nung, which included some 366 plants. Egyptian papyri *ca* B.C. 1500 described many drugs still in use today e.g. fennel, fig, garlic, poppy and mustard. Later, in the 7th Century B.C., clay tablets in the great library at Nineveh presented much information about the Assyrian/Babylonian use of plants including peppermint, liquorice, linseed, opium, mandragora, hellebore and cannabis. There early people successfully developed effective formulations such as infusions (teas), decoctions, snuffs, inhalations, plasters, enemas and suppositories.

The developing nations in pre-Christian times lacked knowledge of science and of the causes of disease states and deficiency conditions; frequently primitive man believed that many illnesses had divine origination and the 'devil' had to be driven out. The result was the widespread use of emetics, cathartics and diuretics.

The fusion of the ideas of medicine of the earlier Sumerian, Assyrian and Egyptian scholars with the Pythagorean Greek tradition of experimentation took place during the 4th Century B.C. in the Greek territory of Ionia, the Aegean edge of modern Turkey. The guiding concept of this Hippocratean school of medicine was that disease is a disturbance of the natural balance of the healthy organism. Disease was considered to be due to many causes and great importance was attached to the balance of the 4 humours — blood, black bile, phlegm and yellow bile (choler) and also to sound experimental evidence. Nevertheless the patient was not to suffer in the interests of experimentation and it was the duty of the physician to treat the whole patient, physically, mentally and emotionally, rather than to treat the disease. Thus a holistic approach developed but it was soon to be overtaken by the rigid systemisation of medicine by the Greek physician Galen of Pergamon (*ca* 129 - 199 A.D.). That contemporary folk medicine of the time included a wide range of plants, probably over 600, can be deduced from the works of the Greek scholars Theophrastus, a pupil of Aristotle (B.C. 372 - 287) and Dioscorides (50 - 100 A.D.). Their writings give detailed information on drying and extraction processes and the detection of adulteration as well as recording the common

uses of the plants and their extracts.

Galen, as physician to the gladiators at Pergamon, gained considerable experience and was a good practical physician and surgeon who used many plant drugs successfully e.g. opium, henbane, colocynth, etc. He was however misdirected by his own hypothesis into using pepper for fevers and scammony for jaundice. His ideas were to influence medicine until the 18th Century and his 'scientific' medicine caused the separation of the physician, the trained specialist in the healing arts, from the traditional healers who continued to care for the poorer classes, to treat the sick in sparsely populated areas and to develop empirically the folk medicine of the common people, handing on their skills by an oral tradition.

As Roman influence swept across Europe the Graeco-Roman ideas of medicine and the use of medicinal plants influenced the already established Celtic tradition in Britain. The famous Welsh physicians, *y Meddygon y Myddfai*, the physicians of Myddfai, had by the 6th Century already absorbed the holistic ideas of the Hippocratean school and sought to treat the causes of diseases rather than to alleviate symptoms. Their neighbours, the Anglo-Saxons, compiled their own indigenous *materia medica*. Notable are the texts of the Venerable Bede, a Northumbrian monk (673 - 735) and the *Leech Book of Bald* (*ca* 950).

Knowledge of herbal medicine was rapidly disseminated after the invention of the printing press in the 15th Century. Herbals by Bartholemew Anglicus (1495), Richard Banckes (1525), William Turner (1538), Henry Lyte (1578), John Gerard (1597), John Parkinson (1629, 1640) and Nicholas Culpeper (1653) gave information on plants and their usage.

Despite this growth of literature, the progress of herbal medicine was retarded by superstitious beliefs and by new ideas in scientific medicine.

The Doctrine of Signatures or Similitudes had evolved apparently independently in widely separated communities from earliest times. In essence the Doctrine indicated that a plant by its colour or shape would suggest a signature to its use in medicine. The Doctrine was unscientific but it did stimulate man's curiosity and contributed to the developments in medical botany.

In the early part of the 16th Century a physician in Zurich, Theophrastus Bombast von Hohenheim, rejected the earlier medical works of Galen and Avicenna, reputedly burning them in public, and introduced his own theories which embraced the Doctrine of Signatures. Indeed, under the latinised name Paracelsus he is normally credited with enunciation of the Doctrine. He also believed in the three principles — the *tria prima* —

Sulphur — all that burns and consumes;

Mercury — all that fumes and disappears in vapours;

Salt — all that is ashes.

These terms had a much wider reference than modern terminology would suggest. The significant factor influencing the development of both orthodox and herbal

\* Abstract from a paper given at the Spring Conference, Oxford, April 19 - 20.

medicine was the introduction of metals such as mercury, antimony, iron, copper and lead into medical treatments. Paracelsus rejected alchemy and insisted that the growing science of chemistry should be employed in medicine. Thus to his credit is the introduction of the era of iatro-chemistry or medico-chemistry.

The apothecary Nicholas Culpeper (1616 - 1654), reverting to ancient Babylonian ideas, reintroduced into herbal medicine the association of astrology and medicine. His illogical and erroneous correlation of plants, bodily systems and the then-known planets was to hamper the advance of rational herbal medicine, yet his book 'The Complete Herbal' was extremely successful, often quoted and has been reprinted up to the present day.

Despite setbacks due to such superstitious beliefs, empiricism ensured a continuous trend of folk medicine or wortcunning especially in areas where physicians were few in number or nonexistent.

Orthodox medicine was still influenced as late as the 18th Century by the Humoralistic-Galenic tradition based on the unholy trinity of venesection, emetics and cathartics to cleanse the body functions of the unfortunate patients. In addition, the use of toxic metals such as mercury and arsenic was quite common. In continental Europe too treatment frequently comprised blood-letting, cathartics and emetics together with baths, opium and bark (cinchona). This reflection of the old humoral tradition was sometimes called the Humoralism of the Eclectics. Nevertheless sceptics were questioning the humoral theory and this was not so much because they opposed drug therapy but because they required non-dogmatic investigation which, they hoped, would result in a reduction of the number of drugs used.

Therapeutic scepticism regarded itself as a logical development of the early Hippocratic teaching employing and supporting the healing restorative power of nature. In theory therapeutic scepticism was empirical; in practice earlier customs and habits were not entirely abandoned. Indeed, as late as 1857 J. H. Bennett in Edinburgh was still fighting against the unsatisfactory practice of blood-letting and K. H. Baumgartner in Freiburg in 1862 again insisted that the five pillars of therapeutics were blood-letting, emetics, purgatives, opium and quinine.

The so-called rational therapeutics was dependent on theories such as Brownism or Brunonianism, a system devised by John Brown (1735 - 1788), who, in his book 'Elementa' (1780), divided diseases into sthenic diseases where the stimuli were too strong and asthenic diseases where the stimuli were too weak. Asthenic diseases predominated and were treated with stimulants and alcohol, mercury and opium. Also the homeopathic system devised by the German physician Samuel Hahnemann (1755 - 1843) swept across Europe although having little impact in Britain.

Medicine in Europe was changing. Chemically pure drugs, particularly the plant alkaloids, were isolated and purified by French pharmacists such as Pelletier and Caventou (narceine, quinine, caffeine, emetine) and Robiquet (codeine). In Paris the brilliant sceptic clinician Magendie (1783 - 1855) introduced many of these alkaloids into practical medicine and, in so doing, laid the foundations of experimental physiology, pathology and pharmacology as

we understand the discipline today.

Plants were still widely used but so to were the 'heroic' treatments. In America in the late 18th Century medical leaders such as Dr. Benjamin Rush of Philadelphia (1745 - 1813) followed the ideas propagated by William Cullen in Edinburgh but other healers registered revulsion to regimens of bleeding, purging and toxic metals such as mercury, antimony and arsenic. Reacting to such treatment of already debilitated patients was Samuel Thomson (1768 - 1843), a largely self-taught healer who had studied Hippocrates and observed American Indian medicine. All bodies, Thomson stated, are composed of four elements. Earth and water constitute the solids and air and fire the fluids of the body. The healthy state depends on the proper balance and distribution of the four elements and disease is their disarrangement. In particular Thomson attached great importance to heat. In his view accumulated waste products reduced heat in the body and thus caused the pathological changes of the disease states. Initially, for the removal of waste products, he advocated diaphoretics e.g. capsicum, willow (for fevers), and also employed emetics, purgatives and rapid diaphoresis induced by vapour baths and stimulants. Later he widened his armamentarium to embrace laxatives e.g. dandelion root, boneset; diuretics e.g. cleavers, elder bark; expectorants e.g. lobelia, horehound; stimulants e.g. capsicum, ginger; relaxants e.g. lobelia, boneset; nervines e.g. scullcap, hops; bitter tonics e.g. myrrh, poplar bark; rubefacients e.g. red pepper, hemlock and demulcents e.g. comfrey, slippery elm bark. Thomson's undoubted success was due to long, careful observation of patients' responses to treatment and not to his simplistic hypothesis. Interest in plants as useful drugs was revived because of Thomson's successes although officially he was regarded as an illiterate quack.

American interest in herbal medicine in the early 19th Century was also stimulated by the success of North American Indian medicines. Wooster Beach (1794 - 1868), a leading American physician, advocated a greater use of indigenous plants, and, although he did not agree with Thomson's unscientific ideas, he introduced a scientific botanic medicine. He and his followers were often called Eclectics.

Beach's system required that medical treatment should neither damage nor diminish the vital powers of the body. To Beach conditions such as fevers or inflammations were nature's efforts to eliminate or repair and should be encouraged with stimulants and proper hygiene.

Thomson's concept of medicine arrived in Britain in 1838, promoted by Albert Isaiah Coffin (1790 - 1866). Unable to make impact in London medical circles, Dr. Coffin travelled to northern England where an empirical herbal tradition still existed.

Coffin's success amongst working people was due in part to the large fees charged by the orthodox practitioners and to the wide distribution of his book 'Botanic Guide to Health', which was used by the Friendly Botanico-Medical Societies that he established in the major northern towns.

Like fellow American Thomson before him, Coffin was extremely dogmatic and anti-intellectual in his outlook and was unable to win establishment support for botanical medicine. The arrival of Dr. Wooster Beach, the arch

enemy of Thomsonian medicine, in England in 1851 increased the growing pressure against Coffin and his ideas. In addition, Coffin's English colleague Dr. John Skelton, who had been born in Devon in 1806, had learnt much of his skill with plants from a local midwife and healer and was an open critic of Coffin's unscientific and anti-intellectual stance, defeated Coffin in an open debate in Bradford in the following year. Skelton supplanted Coffin and initiated a more scientific approach to botanical medicine. This was timely as new and impressive chemical substances — 'the active principles' — were being isolated from plants such as poppy, willow and cinchona. Allopathic medicine was emerging and the isolated chemicals were to become more important than the plants themselves.

With the decline of Thomsonian and Coffinistic medicine and the belief in Beach's Eclecticism, a new wave of practice evolved using extracted resins, alkaloids and concentrated medicines. This movement made little progress in Britain because the expensive Eclectic products of American companies were beyond the means of most British herbalists and their clients. Therefore there was a return to the earlier practice of using mixtures of infusions, decoctions, tinctures and extracts prepared from the whole plant.

Nevertheless the ideas underlying Thomson's philosophy remained. Thomson had stressed the need to eliminate accumulated toxic substances from the body by use of diaphoretics, emetics and laxatives and Beach had modified this theory by seeking to normalise the bodily systems using plant drugs. Books such as "The Working Man's Model Family Botanic Guide" by William Fox of Sheffield, which had already sold 7000 copies before the publication of the 4th edition in 1871, were freely available and widely read. Fox was a disciple of Thomson and Coffin.

W.H. Cook, author of "The Science and Practice of Medicine" (1879), extended their theory, correlating the functions of the circulatory and nervous systems and proposing that functional disturbances were due to "over-contraction" and "over-relaxation" of tissue conditions.

Fellow American T.J. Lyle and, later, J.M. Thurston, who published 'The Philosophy of Physiomedicalism' in 1900, realised the importance of the autonomic nervous system and developed physiomedicalism, an approach based on balancing the circulatory and nervous systems whilst ensuring the efficiency of the eliminatory functions and supporting the activity of organs and systems. The key concept was homeostasis, the maintenance of a dynamic equilibrium of the body including the balance of the psycho-physical processes. In the living body the homeostatic systems return the body to an equilibrium state and the body is therefore controlled by a series of coordinated self-regulatory mechanisms mediated by the nervous system. Illness or disease is a state of disruption of homeostasis and treatment must be designed with the aim of returning the self-regulatory mechanism to its normal function. Therefore herbal treatment differs significantly from allopathic routines which tend to suppress body functions rather than supporting or encouraging restoration.

This neo-Thomsonian system was adopted by the herbalists in Britain and, despite advances in "scientific" medicine and opposition from the medical establishment, the herbalists continued to practise, the National

Association of Medical Herbalists being formed in 1864. To improve the educational standards of herbalists William Webb founded a School of Herbal Medicine in London in 1911, but four years later it had to close.

Herbal medicine has a long and chequered history. Undoubtedly empirical observation has dominated its progress because good treatments remain good treatments. Successes in the herbal world have stimulated physicians, chemists, pharmacists and other scientists involved in the discovery and exploitation of many of today's allopathic medicines. Tribal medicine worldwide is still worthy of investigation and from as yet unresearched plants nature may yield even more surprises to colour a future presentation of the history of herbal medicine.

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## Letters

### Alexander Dalmahoy

I have read with interest Mr Hopkinson's article on Alexander Dalmahoy and Dr. Burnby's comments on it.

The Mr Dalby to whom Dalmahoy was bound was not the person who applied for membership of the Society of Apothecaries in 1719. The Society's Court minutes record that on May 7, 1725 Francis Dalby, son of John, late of Over Heyford, Oxon, clerk, deceased, was bound to Reuben Melmoth. He was freed on Aug. 3, 1731, having served 6 years and 1 month. He paid a fine of ten guineas and 40/- to the physic garden.

On April 2, 1733 Thomas Dalby, son of John of Heyford, Oxon, clerk was bound to him. The apprentice may have been his younger brother. The address of Francis Dalby was given as Newington in the Society's lists of 1749/50, as Southampton in 1759/60 and as Orchard Street, Westminster from 1761 to 1768. He probably died in late 1771 or early 1772.

As Dr. Burnby suggests it is doubtful whether Francis originated the Carminative. I have been unable to find any relationship between him and Joseph of Welbeck Street who advertised the preparation in about 1771. **T. D. Whittet**



# Pharmaceutical Connections:

## The Maw's Family\*

By J. G.L. Burnby

The Ironbridge Gorge Museum in Salop has a good claim to being regarded as the finest industrial museum in Britain. The range of interest which it displays is remarkable running from Severn trows to Coalport china, from Abraham Darby's iron furnaces to the manufacture of tallow candles, not to mention the famous iron bridge itself, so it was scarcely surprising to find the president of the PSGB Dr Maddock, presiding at the official opening of a reconstructed Victorian pharmacy (July 1984). The museum consists of six separate areas, one part across the River Severn at Jackfield being the decorative tile manufacturer Maw & Co. To any pharmacist this is a familiar name and he can not but wonder if there is a link with the firm of Messrs. S. Maw, Son & Thompson. And he would be right!

The story starts on the other side of England, in the Isle of Axholme, where there were many by the name of Maw in that rich farming country. One of them, George, son of George Maw<sup>1</sup> and his wife Alice Rayner, born in 1770, was living in the village of Owston in the last decades of the 18th century with his eight brothers and sisters. He married Ann Hornby and in that village his three children, John Hornby (27 April 1800), Solomon (November 12, 1805) and Rebecca (October 30, 1803) were baptised. George then took an unusual step, at the age of 37 he left the old farmstead and went to London to join his cousin William Hornby who had a small wholesale chemist and druggist's business at 20, Fenchurch Street.<sup>1</sup> The concern does not seem to have flourished and the two decided to part company seven years later.

George Maw bought a business in White Cross Street, Cripplegate, from the Widow Lowe whose late husband had been a manufacturer of surgical plasters. Maw soon moved into the wider field of druggists' sundries and was listed as a pill maker.<sup>2</sup> Within four or five years Maw had moved to 55, Aldermanbury. George's eldest son, John, was sent to school at Apsley in Bedfordshire and then, when he was ten, to the Merchant Taylor's' School. When 15 John began work with his father. The records of the London Pewterers' Company contain the entry, "June 13th., 1822. Freedom of John Hornby Maw, son and apprentice to George Maw, a Loriner." The same day as he gained his Freedom, young John was elevated to the livery.<sup>3</sup> He was also to spend two years with a chemist and apothecary in Croydon in order to gain further knowledge of the requirements of the druggists' trade. Surgery was making great strides at that period and George wisely deemed that there was a good future in the manufacture of surgical instruments, accordingly John was entered at St. Bartholomew's Hospital and studied under Abernethy.<sup>4</sup>

1826 was a momentous year for John, for he was taken into partnership by his father, and in August he married Mary Anne Johnson, (1794-1853). Mary Anne was the daughter of

John Johnson of the famous firm of gold and silver refiners in Maiden Lane, the founders of Johnsons of Hendon, the photographic chemists, and Johnson, Matthey & Co. John Maw's daughter, Anne Mary (1830-1916) fortunately left a family history in which she gives a fascinating glimpse of her parents: "My mother wore a myrtle-green pelisse and with the thrift which guided their early days, they made a profitable business journey of the honey-moon, going by sea to Plymouth from London, and thence home slowly by coach, taking orders and gathering in payments on the way. My mother's sister, Jane, 10 years her junior accompanied them as bridesmaid after the fashion of the times. They had a rough sea voyage and all suffered much from sea-sickness and discomfort. On returning home, my Uncle Solomon Maw came to live with them at 55, Aldermanbury.<sup>5</sup> Three years later Solomon married his sister-in-law Jane.

George Maw retired completely from business in 1828 when his younger son Solomon was made a partner.<sup>6</sup> The firm went from strength to strength and in 1834 moved to its well known address of 11, Aldersgate Street. John Hornby Maw can be justly remembered as a remarkable man. His grand daughter, Elizabeth Read Wood, wrote of him that he had "... the very brightest of blue eyes" and had an "enormous capacity for and love of hard work for its own sake, inventive genius and wonderful powers of acquiring general information ... He made money rapidly and bought a small estate near Roydon, Essex, on which to spend the summer months, and there was visited by De Wint from whom he took some sketching lessons. Mr and Mrs David Cox and their young son were also beloved and intimate friends and many a sketch and larger picture by both artists did my grandfather purchase." Elizabeth's mother, Anne Mary, "First remembered at Roydon also, later on, the familiar and grotesque figure and face of William Hunt. He and my grandfather (neither of them at all horsey men) were run away with and overturned by a tall horse they could not manage between them and being pitched over a hedge were saved from all damage by their own big cloaks getting wrapped about their head and arms."<sup>7</sup>

John Maw's home became a centre for those with an interest in art, a particularly outstanding galaxy being gathered together for Anne Mary's fifth birthday in 1835, David Cox, William Hunt, the De Wints and J.S. Cotman, and the sixty year old J.M.W. Turner. Turner was at his best with children and Anne Mary "sat on his knee with a pencil and envelope provided by him and sharpened by him. He remarked "bless me, the child draws crows a great deal better than I do." Pencil and envelope were long kept in our family as relics. ... At 37 years of age my grandfather had made enough money to retire on and leaving the business to his brother he retired to Hastings" where he had a house on West Hill.<sup>8</sup> There Anne Mary became "My great friend" as Marianne North (1830-90) relates in her autobiography. She also wrote that the delicate Samuel Prout was with other artists a frequent visitor.<sup>9</sup> Anne Mary "remembered Prout as a very pale thin man with a remarkably courteous manner with a voice very weak from frequent throat and lung attacks ... who with characteristic kindness sent her some exquisite little pencil scraps of his as drawing copies with a pretty inscription" when she was nine years old. Marianne North described Maw as "a man of great taste. ... (who) made an exquisite collection of Turner's water colours."

\* Abstract from a paper given at the Spring Conference, Oxford April 19-21

John Maw became mayor of Hastings, but his energy soon took him further afield. He made sketching tours in Wales and Yorkshire with David Cox; and became a competent water colourist himself, much influenced by the work of Girtin and Bonnington. He exhibited drawings at the Royal Academy between 1840 and 1848 when his favourite subjects were views of the interior of his Hastings house. The Gothic Revival in English architecture had led peoples' attention to the manufacture of encaustic tiles, a skill which had died out some three hundred years earlier.<sup>10</sup> Herbert Minton first became interested in reviving the craft in 1828 but had little success, then in 1830, a potter Samuel Wright, working completely independently, was granted a patent for the manufacture of encaustic tiles by mechanical means. Minton purchased a share of Wright's patent, and when the patent expired in 1844, he and Chamberlains of Worcester bought out an extended version of it in equal shares. Both firms were moderately successful in the manufacture of these elegant tiles but Chamberlain's finances were far from sound so that they went out of business only four years later. Their stock of tiles and the goodwill were obtained by John Hornby Maw in 1850.<sup>12</sup>

It may be guessed that it was John Maw's lifelong interest in art which had taken him into the world of the decorative tile.<sup>13</sup> For two years experiments were made with the local Worcestershire clays but they proved so unreliable that it was resolved to move to Broseley close to the Ironbridge Gorge. There Maw's scientific background came to the fore and a survey of 120 different clays, as well as other materials used in the tile industry, was made; the report was ultimately given to the Museum of Practical Geology.

Such attention to detail brought its own reward; from 1862 Maw's won many of the highest awards given at the great exhibitions of the 19th century. At first the firm barely paid its way and did not come into full production until 1857, but by 1883 it was so flourishing that it was moved to a five acre site at nearby Jackfield. It was to become the largest decorative tile factory in the world. In the 1870s decorated wall tiles came into general use and Maw's manufactured many other types of tiles besides encaustic ones. They made those which were hand-painted, incised, enamelled, embossed and transfer-printed, and employed many of the famous artists of the day as designers. They were particularly renowned for a range known as "Persian Ware", the blue employed being very fine indeed.

John Maw's two sons, George and Arthur, both followed their father as tile makers Arthur (born 1834) came to be recognised as an authority, for he contributed the article on encaustic tiles in the ninth edition of the *Encyclopaedia Britannica*. The interests of George (1832-1912) FLS., FSA., FGS., as his qualifications show, were broadly based. He travelled far and studied the ancient tiles of the famous centres of Europe and the Islamic world. At Ironbridge Museum can be seen his collection of hand-coloured tracings of tiles from mediaeval English monasteries and Italian churches. He was a keen geologist and his leather bound notebooks containing drawings of rocks, quarries and railway cuttings with detailed observations were to be deposited with the London Geological Museum.<sup>14</sup> He is most frequently remembered for his botanical work. His interest began with the flora of Shropshire, but soon went further. He made a difficult expedition with Sir William

Hooker to the High Atlas mountains of Morocco and is said to have been the first Englishman to have climbed Mt. Atlas. George was a fine artist and produced a magnificently illustrated monograph on the Crocus genus. His niece, Elizabeth Read Wood, wrote of him that "he was in constant touch and correspondence with such well known people as Huxley, Lady Dorothy Neville, Sir George Elwes, Ruskin, Lord Avebury, Darwin, A.L. Layard, Sir Charles Lyell and many others, and for many years was a county J.P. and mayor of the oldest borough in England, Wenlock, Salop." Nor was he a retiring quiet academic but married Frederica Brown of Hemingstone, Suffolk, and became the father of eight children.<sup>15</sup>

About 1862 the two brothers took a lease on the magnificent Elizabethan house of Benthall Hall near Broseley which now belongs to the National Trust. It was at this time that the building was for a period divided into two dwellings, a staircase being added behind the main one, and a two storey wing to the north-west. The brothers do not seem to have lived together for long however as only George Maw and his family are to be found in the censuses of 1871 and 1881.<sup>16</sup> In the gardens George Maw grew a great quantity of alpine and bulbous plants, most of which he had collected in Europe, Turkey and North America. Many have naturalised and even hybridised and may be viewed with pleasure today.

Although so delicate as a young man, John Hornby Maw lived to be 85. After the establishment of the tile works and his sons' own households, John returned to London, retiring for the second time. At the time of his brother

### Annual General Meeting

An important clarification of The Society's Constitution and Rules was accepted unanimously by the meeting. The committee may now co opt two members "who may not serve for more than three years unless reappointed". The specific maximum term of service sets out the duration of their commitment which was not previously defined.

There was general recognition of the work that Mr Bloomfield had undertaken for the Society. In his report the new Treasurer, Mr Gunthorpe reminded members of the support given to BSHP by the Pharmaceutical Society and its staff, particularly the assistance provided by Mr Robin Hill, the director of finance. There was also the very valuable continuing sponsorship by WinPharm for the *Pharmaceutical Historian* and E.R. Squibb & Sons Ltd for the Foundation Lectures.

### Officers

At the May committee meeting the following officers were appointed:

President	Mr A. G. Mervyn Madge
Vice-President	Mr J. E. Steane
Treasurer	Mr G. Gunthorpe
Joint Secretaries	Dr W. E. Court
	Mr A. Wright

The President welcomed Mr. J. O. Newstead as the new member of the committee. Three other members had been re elected, they were: Miss D. A. Hutton, Mr. A. G. Mervyn Madge and Mr. T. D. Whittet.

Solomon's death in 1861, John, one of the executors of the will was living in Bayswater.<sup>17</sup> No doubt his great attachment to art had drawn him back to the capital. He would have been delighted if he had but known that one of his 23 grandchildren was destined to become the distinguished sculptor, Francis Derwent Wood, R.A. (1871-1926), the youngest child of his daughter Anne Mary.<sup>18</sup>

#### Notes and References

1. As Georges' [1] mother's maiden name was Anne Hornby, it is probable that his parents were cousins. The *London Directory* of 1805 lists 20, Fenchurch St. as Hornby & Co., chemists & druggists, by 1808 it is Hornby & Maw.
2. The library of the Pharmaceutical Society has a Maw's trading list of 1822 in which sundries are to be found on the fourth page; an invoice of 1835 shows Maws to have been pillmakers. It was noted in 1873 that "one of the most important specialities . . . was Sandwell's Issue Plasters, the labels of which still bear the name of Lowe." See *Chem. Drugg.*, Sept. 15, 1873, p.300.
3. The Guildhall Library, the records of the Pewterers' Company, MS. 7097, f.83. The membership of the Pewterer's Company ranged from a goldsmith, a stockbroker and a collector of taxes to stationers, coffee house keepers, worm-makers and braziers, so it would not be surprising to find a loriner in their midst, but of George's Freedom no record has been found.
4. When in 1831 John Hornby Maw took an apprentice William Henry Poole son of a "willow manufacturer" (? maker of chip boxes) at a premium of £30, he was described as a surgical instrument maker. See MS 7102, f.24.
5. D. McDonald, *The Johnsons of Maiden Lane*, London, Martins, 1964, p.86.
6. George Maw died at Peckham in 1833, his estate being valued at £18,000. After making suitable provision for his wife Fanny, the residue was divided between his two sons. John inherited his father's freehold property at Owston, Lincolnshire called "The Owl", attempts have been made to trace this house in the village but without success. (See P.R.O. Prob. 11 1821, f.585 and Prob. 8 226.)
7. Like her mother, Anne Mary Wood née Maw, her daughter Elizabeth Read Wood wrote some family biographical notes, copies of some portions of which are in the writers possession.
8. John Maw's obituary gives his date of retirement as June 1835. His brother Solomon, an excellent business man made a great success of the firm inspite of a terrible fire in 1856. Solomon was followed by his eldest son Charles, and he by four of his five sons. Ownership of the business passed to Norcross in 1959, although the fifth generation, Denys and David J. Maw were still associated with the company until 1968 and 1966 respectively.
9. M. North, *Recollections of a happy life*, London, 1892, vol. I, p.28.
10. The term "encaustic" is used to describe floor tiles in which the pattern is made by means of inlaid coloured clays which are fused into the main body during firing. The chief difficulty was the irregular contraction of the clays.
11. L.I. Jewitt, *Ceramic art of Great Britain*, 1878, vol.2, p.195.
12. J. Barnard, *Victorian ceramic tiles*, London, Cassell, 1972, p.33. It is often stated that it was John's sons who were the founders of the tile works, but they were only 18 and 16 in 1850.
13. He appears to have first become involved in ceramics in 1848 in Devonshire. See Mc.Donald, op.cit note 5, p.98.
14. T. Herbert, *The Jackfield decorative tile industry*, Ironbridge Gorge Museum Trust, 1978, p.5.
15. Two of George's children, Charles Percival Maw and F. Davy Maw became directors of Johnsons, the firm belonging to their grandmother's family.
16. *Benthall Hall*, The National trust, 1983, p.20. These additions have now been demolished. Traditionally the house's building date is 1535 though the style points to the 1580s; it has close associations with the exciting times of the young and fugitive Charles II. It is currently occupied by a member of the family, Sir Paul Benthall.
17. Later in life Solmon had forsaken the City for Richmond, Surrey. His estate was assessed for death duties at over £40,000.
18. Anne Mary Maw married Alpheus Bayliss Wood, an American who was born at Harrisburg in 1826. Soon after their marriage, Wood bought a lead-pencil works in 1864 at Keswick where the family was living at the time of Francis' birth. Probably the best known of Wood's works is his statue of David on the Machine Gun Corps memorial at Hyde Park Corner.

## A Chemical Cottage\*

By W. S. Tait

The story of "A Chemical Cottage" begins when my wife and I were staying near the little village of Fortingal in Perthshire. One day we received a letter addressed to "The Owner : Chemical Cottage : Fortingal." As this address was not known to us or our friends in the neighbourhood, contact with the local Postmistress allowed us to open the letter. It was found to be from the Historic Buildings Council for Scotland intimating that restrictions still stood regarding any alteration to the cottage and asking for information. The letter was referred back to the Scottish Development Department asking them for further information.

The Department's reply enclosed a map showing the area around Loch Rannoch some ten miles north of Loch Tay and Fortingal. Strangely enough this map did include the place name Fortingal in the margin — perhaps as an old parish reference. A photograph was enclosed showing the house called Chemical Cottage but not showing the outbuilding to the rear. We agreed to journey up to the north east shore of Loch Rannoch to see what we could find out about the cottage. We located the house easily, confirming that the cottage still existed. It is presently used for summer letting. We were put in touch with a lady living now at Kinloch Rannoch but who had lived until recently at the cottage.

She told us that a charcoal process had been worked in an outbuilding at the rear of the cottage using birch trees cladding the local hillside. I had expected her to say that the charcoal was used to smelt metal containing ore mined locally. In the 18th century it was believed that there was great wealth hidden in the rocks of Breadalbane, between Aberfeldy and Tyndrum. The types of ore were thought to include lead, copper (certainly mined at Artalnaig and Ardeonaig on Loch Tayside) chromite, iron pyrites and galena. Ventures were made to mine the minerals but more are recorded to have ended in financial failure.<sup>1</sup>

However our informant was adamant that the birchwood was not used for smelting but was used for charcoal.

Of added interest was the information that the tarry byproduct from the burning of the birchwood was used to compound a burn remedy called 'McIntosh's Burn Salve or Ointment'. From local accounts this may originally have been put out in a bottle or jar then later in a tin.

The apparent existence of a burn salve under the name of McIntosh suggested that there may have been a chemist of that surname associated with its production — perhaps further afield than the Rannoch area. As a result of a search at the library of the Pharmaceutical Society in London by Miss MacKenzie, it was found that there had been a Daniel McIntosh in business at Muthill just south of Crieff in Perthshire.

On searching back through the obituary notices in the *Crieff Strathern Herald* for the year 1900 it was found that a

\* Abstract from a short paper given at the Spring Conference, Oxford April 19-21



Daniel McIntosh had been born in Muthill in 1816 and died there in 1900, having, it is said, only been away from his native village for a few days. McIntosh appears to have been a man of varied interests as he was one time grocer, also a weaving agent and later a chemist. Added to that he held the office of "Inspector to the Poor", as registrar as well as enumerator of the parish, and even as schoolmaster in 1865. His presence at local events appears to have been cultivated for the account claims that McIntosh was present at the laying of the foundation stones of all the churches in the village — Established, Episcopal and Free. In his early days he was reported to be "an enthusiastic Free Churchman". The report honoured McIntosh as being 'a clear-headed and intelligent man of an outgoing disposition' and a 'local lawyer to many of the village'. He died at the age of eighty four years — never it is maintained at any time having required the use of spectacles.

It was hoped to discover whether there was a connection between this Daniel McIntosh of Muthill and the McIntosh of Rannoch. Efforts were made to meet someone who could supply further details of McIntosh Burn Ointment. On contacting several residents of longstanding in Muthill — especially with the surname of McIntosh — no further information was forthcoming, except that the premises used

for the chemist's business are still standing. The salve or ointment is certainly still remembered and one of the McIntosh's contacted had a now deceased uncle by the name of Daniel McIntosh, but he had lived at Dunkeld some thirty miles from Muthill.

On back tracking to my original informant, at Kinloch Rannoch, I learned that about 1965 an elderly, well educated gentleman had called and spoken to her, about her grandfather Mr McIntosh, who had come to Rannoch from Pitlochry — only a few miles north from Dunkeld.

Like a jigsaw puzzle with the last two pieces missing, the question still remains — was Daniel McIntosh, chemist at Muthill, connected to the McIntosh of the burn ointment? I am also still searching for clues to a bottle or tin of McIntosh's Burn Antidote.

#### Reference

1. Rev. W. A. Gillies In famed Breadalbane 1938 p 212

#### Acknowledgements

Grateful acknowledgement of help is also made to Mrs I Peebles, Kinloch Rannoch  
Messrs C & I McIntosh, Muthill  
Mr & Miss Hood of Muthill  
Gordon Phillips of Crieff  
Miss MacKenzie of P.S.G.B. library, London

## Murders and the Detection of Arsenic★

By A. G. Mervyn Madge

A little while ago I wrote "Murders, Most Pharmaceutical" which dealt with murders which hit the "national headlines" though there were none in those days but they became "national" nevertheless. They stirred the public imagination and revealed the social conditions, crime and punishment, religious intolerance, local prejudices of those days. It was suggested that I use some of the material but develop it by bringing in murders by arsenic and the detection thereof.

In studying the progress of detection we should first glance at the beliefs held down the centuries. From the days of ancient Rome, doctors, lawyers, law officers had very faulty notions about symptoms of poisoning backed by superstition and poor observation. If a body looked black and blue, spotted in places, or smelt bad it was evidence of poisoning, though studied observation would have recognised the normal process of decay. It is quite clear that with these ideas and no means of chemically proving poisoning, thousands of persons in this country alone must have "passed away" without incurring suspicion, especially with the prevalence of cholera and its similar symptoms. Therefore arsenic was considered as "the poison above all poisons".

In the 8th century an Arab alchemist converted arsenic into the white, tasteless, odourless oxide power. This became the poison supreme. Again many were poisoned without the detection of the culprit.

Arsenic poisoning probably reached its famous, or rather infamous peak, from the 14th century onwards. Its use was rife amongst the royalty and aristocrats of the Italian Renaissance Period.

Another sinister lady was Teofania di Adamo in the 17th century who used her *Aqua Tofane* for her evil purposes and sold this deadly potion — a solution of white arsenic to countless poisoners. Equally infamous was a Marie Madeleine, Marquise de Brinvilliers who poisoned indiscriminately with her "*Eau admirable*". White arsenic became known as the "*poudre de succession*" — the inheritance powder.

Police and judges had no means of proving a victim had died from arsenic unless the poisoner had been careless in purchase or there were witnesses to prove administration.

However chemistry was gradually coming into the picture and the police systems developed.

The first momentous step was that of Scheele who in 1775 found that white arsenic could be changed to the acid by chlorine water or aqua regia. Coming into contact with metallic zinc it produced the highly poisonous arsine with its garlic smell.

A few years later Hahnemann, the "Father of Homoeopathy" showed that arsenic in fluids including stomach contents formed a yellow precipitate when mixed with HCl and H<sub>2</sub>S. In 1787 Johann Metzger found that if arsenic suspected substances were heated over charcoal and a copper platter held over the vapours it became coated with

\* Abstract from a paper given at the Spring Conference, Oxford, April 19 - 21.

a whitish layer of arsenious oxide when arsenic was present. Further, if white arsenic was placed in a test tube, charcoal added and the tube heated until the charcoal was red hot, the arsenic vapours as they passed over the coals were converted back to metallic arsenic which was deposited on the cooler parts of the tube as black or brownish-black metallic flakes, or "mirrors" as they were called.

Valentin Rose of Berlin Faculty of Medicine went further in the detection of arsenic in the intestines and stomach walls by cutting the organs into small pieces, frequent boiling in water, treating the liquid with nitric acid, adding potassium carbonate and lime water, drying the precipitate and then getting the positive mirrors with the Metzger test.

So the art of detection progressed. Perhaps the greatest advance was by a Minorcan called Orfila who improved on Metzger by the use of saltpetre on the stomach and heating until charred. He also proved arsenic passed from the stomach and intestines to the liver, spleen, kidneys and nerves, giving a wider area for detection. Because of his work and influence he could be called the Father of chemical detection though he was more of a compiler and experimenter than a discoverer.

However the person who made the greatest step forward was an Englishman, James Marsh, of the Royal British Arsenal at Woolwich.

A prosperous farmer of nearby Plumstead died under curious circumstances, after suffering from vomiting, abdominal cramps, diarrhoea and weakness in the limbs following the drinking of his breakfast coffee. His daughter, grand daughter, and servant girl had pains but recovered. An alert Justice of the Peace who knew the family well was suspicious of a dissolute grandson, especially after discovery that two purchases of arsenic from a pharmacy had been made for use as a rat poison. The J.P. ensured the coffee pots were placed under seal and the body sent to a surgeon who removed the intestines. These were sent with the coffee pots to John Marsh. They were sent to the latter who was developing a recoil brake for naval guns because he was the only competent chemist in the area.

Marsh reluctantly put aside his work, studied the methods developed in Germany for detecting arsenic and duly produced the tell-tale yellow precipitate soluble in ammonia. At the coroner's inquest he convinced the jury a murder had been committed by poison and the grandson was committed for trial. At the trial things were different due to the public distaste of the police and scientific proofs. Yellow precipitate and ammonia were outside the comprehension of the jurors. They wanted to SEE the arsenic. The defendant was acquitted though seven years later he admitted his guilt, before being transported to Australia for crime.

At this acquittal James Marsh's pride and ego had been stung. He set out defiantly to find a method to demonstrate irrefutably the presence of arsenic by making it so visible that even the densest juror could see it. In the Arsenal library he came upon the works of Scheele and decided that the method of producing arsine was suitable to his purpose.

The process developed was so ludicrously simple that men like Orfila never forgave themselves. If  $\text{HCl}$  or  $\text{H}_2\text{SO}_4$  are mixed with fluid containing arsenic and zinc added, hydrogen is liberated which reacts with the arsenic to form

arsine. Marsh developed the test and its sensitivity.

Marsh's fame was assured.

The case which put him on the world stage was that of Marie Lafarge. A French woman of 24 who was accused in 1840 of murdering her husband. It was the usual case of an unwanted spouse, the vomiting, dysentery etc, pain, death, the seen administration of a white powder and the purchase of poison for rats.

Three selected "scientists" declared there was no trace of arsenic in the stomach. The defence expected acquittal but the prosecuting counsel who had studied Orfila's works demanded that other organs must be tested to which the judge agreed. The poor husband's corpse was dug up again.

When the court resumed, the liver had undergone the Marsh Test and it proved negative. Further tests on spleen, lungs, heart, intestines proved negative. Defence counsel demanded acquittal. The prosecutor brought out another card. All thoughts had been concentrated on the body but how about the beverages including the eggnog which had been given to the victim. Defence counsel, now full of confidence and thinking if the experts had made a mess of the test so far they might do the same again, agreed.

The verdict, enough poison in the eggnog to kill 10 people. However the prosecutor did not demand sentence. He probably saw that though the eggnog contained arsenic, since there was none proved in the body there was a weakness here in the chain of proof. He now did a curious and startling thing. Stating that the defence had at times pleaded that Orfila be brought into the case, he would now agree to this and accept the evidence of the expert as final. The defence had no option but to agree.

The great man arrived, carried out his tests under strict surveillance at the Town Hall. It was a trial of the Marsh Test as well.

The court was recalled. Orfila pronounced his verdict. "I shall prove first that there is arsenic in the body of Lafarge, second that this arsenic comes neither from the reagents with which we worked, nor from the earth surrounding the coffin; also that the arsenic we found is not the arsenic component which is naturally found in every human body". The Marsh Test had been completely vindicated.

It was now world famous. There had been bad bungling on the part of the other so-called experts, in their tests they had held the bunsen in the wrong place driving off the arsenic! Marie Lafarge was sentenced to life imprisonment with hard labour. This spurred interest in chemical detection and the advance continued but not without some disturbing episodes. In 1859, Taylor, a brilliant English forensic scientist and toxicologist, nearly ruined his reputation using the Hugo Renisch Test. This consisted of suspected arsenic solutions being mixed with  $\text{HCl}$  and brought to the boil. Fine copper mesh was then introduced. If arsenic was present it would be deposited on the copper as an iron grey coating.

After being closely questioned in a case he found that the  $\text{HCl}$  had been arsenic tested but that the copper mesh had provided the arsenic he had proved.

Fifteen years later Franz Sinnenschein committed the same error with arsenic in his  $\text{H}_2\text{S}$ . The widespread incidence of

arsenic was further emphasised by a Royal Commission set up in 1900 to enquire into arsenical poisoning of nearly 6,000 people in Manchester. It was found that in brewing beer the breweries had used glucose contaminated with arsenic in manufacture. Arsenic was found in baking powder, malt, vinegar, jam, sweets coloured by arsenic dyes, and wallpapers. Arsenic was seemingly everywhere and hence toxicologists were forced to call for greater precision. They have reacted by making use of developments in colorimetry, titrimetry, quantitative

analysis, spectroanalysis, photometer, flame photometer, progressively using the latest scientific developments.

I gratefully acknowledge the help of Miss P. North and her staff at the Pharmaceutical Society's Library and the members of the Plymouth Reference Library.

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## The Relic of Dr. John Oglander\*

By J. Steane

"Relic" is a word which, like so many others in English, enjoys several nuances. *Chambers' Twentieth Century Dictionary*, says, of 'Relic'; "it is a memorial of antiquity or object of historic interest"; and that it is "a survivor of the past". *Collins' Thesaurus* says: "Something left from an earlier time". The O.E.D. defines it as: "an object invested with interest by reason of its antiquity or association with the past". The word as used in the title today is to convey all of these meanings, for the relic of Dr. John Oglander is his splendidly-preserved *materia medica* cabinet.

*Materia medica* collections were prepared from the late 17th Century onwards and were used for instruction purposes, though some may have been acquired and kept as an educated gentleman's 'curiosity' or an attractive piece of furniture. They were, indeed, produced in some form or another, right until this Century. The Birmingham firm of Southall Brothers and Barclay supplied cabinets for students until 1920.<sup>1</sup>

They were sturdily made, well finished and usually comprised several drawers each subdivided into neat compartments for specimens of fruits, leaves, seeds, gums, barks, roots, resins, woods, metals, ores, fossils, bones, juices, balsams and so on. They constituted the *materia medica* in use at the time the cabinet was produced.

Of the earlier cabinets and contents still extant, three are in Oxford, and all are to be seen in the Museum of the History of Science in Broad Street. The oldest one of these is almost certainly the Dyer Collection, formed by Edward Lhwyd for Richard Dyer (born 1650's). The collection is contained in an oak cabinet comprising thirty five small drawers. They hold specimens of seeds, shells and fossils, mainly from Barbados. Dyer was connected with Oriel College and the collection is at the museum on loan from that College. The collection is small, drawn from a limited geographical area and, regrettably, now incomplete in several drawers. It is, however, of great historical interest and according to the writer of a special article in the *Chemist and Druggist* of June 26th 1937, is "the oldest collection of its kind in the country and possibly in the world."<sup>2</sup> The same article dates it as about "the year 1700", and another reference to it also by the "C & D" but 17 years later (June 1954) says "it dates from the late 17th Century."<sup>3</sup> The wood and workmanship

give the impression of it being as old as claimed, though the 4-legged stand on which it is supported is of different wood, different workmanship and different colour; clearly built at some later time to support the cabinet. Lhwyd died in 1709 having held the position of Museum Keeper since 1691. From his correspondence he had been a close friend of Dyer and so it would be reasonable to date it within this period.

Another accumulation in the Museum is the Pointer *Materia Medica*. The word "cabinet" can hardly be used here since the remaining specimens, although still in their original, multisectioned drawers, have suffered badly from wear and tear. At some time between the mid-1920's and '30's the wide, extensive drawers were skillfully built into a large wooden sea chest turned on one end so that its lid now opens vertically from its hinges, instead of horizontally. There are currently twelve large drawers with supports for two more, with each drawer having up to ninety divisions in each.

The collection has had a very chequered existence. It appears to have been prepared by John Pointer (1668-1754) for use in his work as a tutor at Merton College, and dates, one assumes, from about 1720. He prepared a written catalogue of its contents and a book of lecture notes which have survived and are kept in the library of the History of Science Museum. Pointer was a numismatist<sup>4</sup> and had made a collection and study of the Greek and Roman Series, as well as medals and tokens. As coins have traditionally been stored in trays in cabinets, and since Pointer's original cabinet of objects included several drawers of coins, it would seem possible that his professional work took over a hobby, so that his coin cabinet became, in addition, a repository for specimens of the natural world.

An advertisement he issued in the form of a broadsheet or handbill in 1731 reads as follows:-

"If any Gentlemen (that design to study Physick, or have otherwise a mind to divert themselves with the study of Natural Philosophy) are willing to go thro' a Course of PHARMACY, BOTANY, MINEROLOGY, and METALLOLOGY, and have a mind to be acquainted with the Several Sorts of Metals, Minerals, Medicinal Salts, Bitumens, Earths and Ores, as also the several Sorts of Gums, Juices, Chymical Preparations, Exotick Fruits, Plants, Roots, Seeds, Barks, and Flowers; Mr. POINTER of MERTON College, who has got a compleat

\* Abstract from a paper given at the Spring Conference Oxford, april 19-21



*Collection of the Physical Drugs that are now in Use, will be ready to attend them at his Chamber in MERTON College, to show 'em Specimens of each Drug, and also to read Lectures upon the same (which he has prepar'd and collected. . . )"*

*"The Course will begin on the 21st JUNE next, at Two o'clock in the afternoon. Each Gentleman to pay a Guinea at entrance.*

*"And when this Course is ended, they may (if they please) be entertained Gratis with the Sight and Explanation of a Collection of 500 Greek and Roman, as well as Modern Coins and Medals of all Sorts, as also a Collection of Antiquities and Curiosities both Natural and Artificial".*

Pointer, it is said, bequeathed his collection to St. John's College in about 1740<sup>5</sup> which would be 14 years before his death.

The pride of the Oxford Materia Medica Cabinets is, the Oglander, so named after Dr. John Oglander, Warden of New College, Oxford, from 1768 to 1794.

Dr. Oglander was a cleric who spent almost his entire life at Oxford. He was born in 1737, the second of three sons of Sir John Oglander of Nunwell, on the Isle of Wight and like his two brothers, William and Henry, did well academically, first at Winchester College and then at Oxford. His elder brother William, who inherited the family title to become the 5th Baronet, was a Fellow of All Souls; his younger brother Henry was elected a Fellow of Winchester. John himself matriculated from St. John's College in October 1756 aged 19; achieved a B.A. from New College in 1761; an M.A. in 1765; became a Bachelor of Divinity in 1770 and a Doctor of Divinity the same year. Prior to his degrees of B.D. and D.D. in 1770, he had been elected in 1768, at the age of only 31, Warden of New College, a position he was to hold until his death.

Little seems known of his life either personal or public, except for ownership of the *materia medica* cabinet which he acquired and which later came into the possession of New College. A lot, however, is known about the cabinet. It was probably ordered during March 1729 and took perhaps nine working weeks to prepare. This was some eight years before Oglander's birth, for the man who commissioned it was one Thomas Jobber of Aston, Salop. He placed his order with a London Apothecary, Joseph Clutton, who had originated from Worcestershire. Joseph Clutton wrote out a bill for the work done from which we know exactly what was put together and, moreover, what each item cost. The mahogany cabinet and frame cost £5-7s-9d; paper to line the various compartments 2s 2d; 28 cut flint glass pots with brass caps (used for liquids), 10s 8d; 12 specimens of animals 6s-d; 50 parts of animals £1-5s-0d; 29 specimens of ores £1-5s-0d; 28 precious stones, each about 2 drams, £1-5s-2d; 51 of "Minerales Marines; Sulphureous &c. each 1 ounce", 12s 9d; 109 Roots £1-16s-4d; 17 Woods (also 1 ounce) 8s 6d; 19 Barks 6s 4d; 53 Gums, Resins Balsams (half ounce) £1-9d-5d; 17 of Juices 4s 3d; 33 of Flowers 5s 6d; 154 of Fruits, Seeds &c (half ounces) £1-8s-6d; to a total of £21-6s-8d. A handwritten footnote says that this figure is for "setting those . . . Specns. in order wh. curiously pick'd & chosen, and lining ye Cells with Coffins, labelling &c was about 60 days work" with payment to be made by the purchaser at his pleasure.

The Cabinet includes in two of its drawers, two large leather

volumes to hold no less than 460 specimens of plants and flowers, each with the Latin name written adjacent and held in place on the pages by adhesive paper, in alphabetical order, together with an addenda of additional species at the end of the second volume. The two volumes to hold the plant specimens cost just 10s-4d, while the 460 pieces themselves cost a further £3.3.0d. These amounts are included in the £21-6s-8d total. Including the pressed plants and flowers, the total number in this comprehensive assortment of botanic, medical and natural science items comes to no less than one thousand and thirty-two (1,032), located in six drawers. More remarkably, they are in their original condition. Covering each of the drawers is a sheet of thin glass, held in place by slotted channels on the top inside edges of each drawer, thus keeping out dust and dirt. Its pristine condition shows that unlike the Pointer Cabinet, it was never used for teaching purposes but has spent its existence in careful hands. Gunther's 'Handbook'<sup>6</sup> ranks it as the oldest collection of Materia Medica in its original state in this country and a most precious memorial of its time.

The six drawers are filled according to type with each drawer clearly distinguished by Latin inscription as follows:-

- |                             |                                   |
|-----------------------------|-----------------------------------|
| 1. FLOWES SEMIN: FRUCI: &   | (Flowers, Seeds, Fruit etc)       |
| 2. RADICES                  | (Roots)                           |
| 3. LIGN: CORT: GUM: SUCC: & | (Woods, Barks, Gum, Juices etc)   |
| 4. METAILIA LAP. PRET. MIN. | (Ores, Precious Stones, Minerals) |
| 5. PARTES ANIM:             | (Animal species)                  |
| 6. ANIM: & PAR:             | (Animal parts)                    |

Within the drawers, each tiny compartment is numbered, which suggests that a catalogue, perhaps similar to the Pointer list, may have once existed or been intended. The whole is of fine, polished wood, with hinged lockable doors and supported on four slender legs with matching feet. Its total height is 45 inches, width 27 ins and depth 18 ins. This makes it considerably larger than the Dyer Cabinet, which stands at present 30 ins high including its base and is 31½ ins wide by 12½ ins deep. The Pointer cabinet — the one now thought to be resident in the Heberer archives — should be larger still as the rather cumbersome drawers measure 2 feet square.

Joseph Clutton, the Apothecary who was given the order for the collection, was born about 1695. He was the son of John and Mary Clutton of Pensax, Worcester, a small hamlet several miles S.W. of Kidderminster. In 1709 he was apprenticed for eight years to the apothecary Benjamin Morris, formerly from the neighbouring County of Hereford, which at its nearest point is only 3 or 4 miles from Pensax. It seems likely that this Benjamin Morris, a Quaker, was in all probability related to the apothecary and fellow Quaker Richard Morris of Rugeley in Staffordshire, some 35-40 miles on the opposite side of Pensax, beyond Wolverhampton and Cannock; for young Joseph Clutton, once he had completed his apprenticeship with Benjamin Morris in May 1717, promptly married Mary, the daughter of Richard and Hester Morris in Rugeley. Joseph Clutton evidently set up business in Holborn, London, and by 1732, some 15 years after completing his apprenticeship, he and his former master Benjamin Morris appear to be working in

partnership. The Rate Books for the Parish of St. Andrews, Holborn-above-Bars show a joint property in their names on the North Side and also property between Warwick Court and Brownlow Street.<sup>7</sup> In 1743 Joseph Clutton died at the age of about 48 and his business was continued by his widow, his 17-years-old son Morris Clutton (evidently retaining his mother's maiden name) and one of Joseph's long-serving apprentices, a certain Thomas Corbyn, who was to firmly establish his name during his long life. It is known that Joseph Clutton had apprenticed several young men in the years immediately after receiving his "freedom", e.g., James Smith of Salop in 1717, and Eldridge Beale shortly after. In September 1728 he apprenticed this Thomas Corbyn, also from Worcester and also a Quaker, being the son of John and Candia Corbyn. He had been born in 1711 and was thus 17 when Clutton became his master. Interestingly, he had been with him only six months when Thomas Jobber requested Clutton to assemble the now-famous Oglander Cabinet. It is thus very tempting to surmise that the young Corbyn was engaged at some stage in part of the work of preparation of the collection, possibly being sent to procure and gather examples of the botanical items needed. He evidently remained with Clutton for 15 years, for the Mintue Book of the Society of Apothecaries records his freedom on April 5th 1743 stating "Thomas Corbyn late ap. (pprentice) Jos. Clutton decd. having served full term exd. (examined) appr. (oved) sworn and made free".<sup>8</sup> Meanwhile Benjamin Morris, Clutton's erstwhile master and onetime partner at Holborn in 1732, was still active, though he himself died in the same year, 1743. Benjamin Morris had, in fact, attained high office in the Society of Apothecaries, being a member of its Court in 1737, its Upper Warden in 1739 and its Master in 1741.<sup>9</sup>

With the deaths of both Joseph Clutton and Benjamin Morris in quick succession and having only a 17-years-old son to carry on Clutton's business it would seem reasonable for Widow Clutton to encourage Corbyn to obtain his release immediately and then to invite him to join in ownership. That appears to have been done, for members of the Corbyn family were part of the firm from then and for the next 100 years. Moreover, their name remained continuously as part of a frequently-changed title for nearly 200 years, by which time it was known as Corbyn, Stacey & Co. It was finally wound up under that name in 1927.

The Oxford Materia Medica Cabinets are not the only ones in existence. Doubtless many were made in the 17th and 18th centuries and thus it is to be expected that a quantity of them survived. Cambridge can boast three of them, again fine examples, all formerly owned by Doctors of Medicine who lectured in Materia Medica, viz., those of John Vigan (now in Queen's College), John Addenbrooke's (now in St. Catherine's College), and William Heberden's (St. John's College).

The Vigan is believed to date from the early 1680's — or part of it does — but when it came into Vigan's possession in 1704, he acquired additional drugs from Francis Porter, a London druggist. It does appear, like so many others, that further additions and alterations to contents were made at

several later dates.

The Addenbrooke has been dated as at c. 1730, but it can claim a superior antiquity in that some of its contents are known to have existed in 1662, though not necessarily in that cabinet. Once again, this one has had additions and alterations at various dates.

The Heberden is a later example, the earliest reference to it being in 1751, and is by far the largest of the Cambridge cabinets.

Another survivor, relevant to this paper, is the one now in the safe keeping of the Pharmaceutical Society of Great Britain and known as "The Corbyn Cabinet". As the name suggests, it came from the firm of Corbyn, Stacey & Co. It is described as a "cabinet of drugs used prior to the formation of the Pharmaceutical Society and in the olden days of the apothecaries in the examination of their assistants by the firm of Corbyn & Co."<sup>10</sup> The cabinet, which is made of mahogany, is 5ft. 6ins high, 18 ins deep and 3ft. 2ins wide. It has 26 much smaller drawers than either the Pointer or Oglander and each is numbered and labelled as the others. Each drawer is likewise subdivided into numerous small sections, and the total number of specimens is 462, some dating as far back it is claimed, as the first half of the 18th century. If that is so, then it opens speculation as to whether Thomas Corbyn had a hand in its preparation, in addition to possibly being involved in the production of the Oglander. The Corbyn Cabinet was presented to the Pharmaceutical Society's Museum in 1908 by Mr. S. Lloyd Stacey, of Corbyn, Stacey & Co., then still at 300, High Holborn, London. The Stacey family were also Quakers and the donor was the fourth generation to be connected with the firm, the first one, George, having joined the Corbyn business in 1772.

It would seem, on present evidence, that the Oglander Cabinet is the oldest, largest completely-unaltered and best-preserved Materia Medica Cabinet to be seen, for, as Dr. Gunther wrote shortly after being shown it for the first time in 1925 when it was found in the Muniment Room of New College, "The drawers had rarely been opened since the death of the owner in 1794".

#### Acknowledgements

I would like to take this opportunity to thank several people for their help and guidance. Miss Kate Arnold-Forster, the Pharmaceutical Society's new Museum Officer. Dr. Douglas Whittet and Dr. J. Burnby who provided me with sight of a joint paper they had prepared on some 18th Century Apothecaries, and the Librarian of the Museum of the History of Science at Oxford, Mr. A. V. Simcock.

#### Footnotes

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# PHARMACEUTICAL HISTORIAN

Vol. 15 No. 3  
September 1985 £1

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der  
Technischen Universität  
Braunschweig

Newsletter of the BRITISH SOCIETY FOR THE HISTORY OF PHARMACY

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## Evening Visit

An unusually large gathering of members attended the evening visit to the Wellcome Institute for the History of Medicine, London, on May 9 when they were received by Mr Eric J. Freeman, deputy director and librarian. He briefly described the background and development of the Institute and members were then shown some of the treasures in the vast collection of books. They were also able to see an exhibition "The Pest Anatomized — Five Centuries of Plague in Western Europe". Altogether a fascinating evening and members expressed their appreciation to Mr Freeman for providing the opportunity for the visit and arranging the hospitality.

## Congratulations

To **Professor John K. Crellin** on being appointed the second Fischelis Scholar by the American Institute of the History of Pharmacy. Professor Crellin, who was President BSHP 1974-76, is now an associate Professor of Community and Family Medicine and Medical History at Duke University and President-elect of the American Institute of the History of Pharmacy. His appointment provides the opportunity for research on historical perspectives on pharmacists' attitudes toward herbal medicine. He expects to present his findings in a monograph tentatively entitled "Herbal Medicine and Pharmacy: Perspectives on Professional Realities".

To **Dr J G L Burnby** who was recently elected a member of the International Academy for the History of Pharmacy.

To **Dr T D Whittet CBE** to whom the Royal College of Surgeons has granted the honour of being the Thomas Vicary Lecturer for 1986. When he will speak on Barber Surgeons' Tokens. Dr Whittet was the author of an article on Spectacle Makers' Tokens published in a recent Newsletter of the Worshipful Company of Spectacle Makers.

## Diary Dates

### September 11

#### British Pharmaceutical Conference Leeds

BSHP History Session in the Rupert Beckett Theatre, Leeds University at 2.15 pm. Professor R. I. McCallum on "Charles Turner Thackrah and Preventive Medicine". Professor D. R. Wood on medical and pharmaceutical education in Leeds (final title to be determined).

### November 7

A joint meeting with the Order of St. John, at St. John's Gate, St John's Lane, Clerkenwell, London EC1.

### February 13, 1986

Joint meeting with the Pharmaceutical Society Dr J. M. Stead, British museum. "Lindour Man: An Iron Age Body from a Cheshire Bog".

### March 13

Foundation Lecture: Dr Alex Sakula on "Asthma Cures, Ancient and Modern".

1848



# Expunctum est Mithridatium

By David L. Cowen

Were we to wish that we had been present at a great moment in the history of pharmacy — truly a single, decisive and consequential moment — we might have chosen to have looked over the shoulder of an Edinburgh physician when he scratched the lines depicted on the pages reproduced here. These pages are from an interleaved copy of the fourth edition of the Edinburgh Pharmacopoeia of 1744 (in the author's possession). It was obviously a copy used by a member of the Pharmacopoeia Committee of the Royal College of Physicians in preparing for the fifth edition of the Pharmacopoeia that appeared in 1756.

Dr John Clerk, Sr, former President of the College, was mainly responsible for the revision. According to the College Minutes he "had undertaken to Look over the dispensary (dispensatory)", and he was to be assisted by a distinguished group. It included four Professors of Medicine at Edinburgh: Dr John Rutherford (President of the College), Dr Andrew St Clair, Dr Robert Whytt and Dr Andrew Plummer (who was also Professor of Chemistry). In addition there were Dr Charles Alston, Professor of Botany, Dr Robert Lewis and Dr William Porterfield.

On October 2, 1755 the College was informed that Dr Clerk "had finished the dispensary" and it was agreed that "it ly in the President's hands where the fellows may Call for it, and what observations they Shall make, they are desired to give in ye same to the President". The President was empowered to call another meeting of the College, or not, as he deemed necessary.

Thus, judging from the leading role that Dr Clerk played, it is likely that it was he who made these lines expunging the mithridatium and theriaca. But one of the other Fellows may have been the expunger, especially since the corrected version from which these pages come was not the copy used by the printer. There are differences between the emendations and the final 1756 publication, but it is clear that the one responsible for the draft was an important and respected Fellow, for the changes that were made reflected to a very great extent those that he recommended.

With the stroke of a pen, Dr Clark, or one of his colleagues, expunged the Mithridatium and the Theriac from the armamentarium of the physician and the arcanum of the pharmacist where they had held sway for seventeen centuries. The immensity of the expurging of these two polypharmaceuticals, the courage and the conviction it took to do so, are obvious. Their long tradition, their international reputation and the trade in them, the pomp and circumstance of their compounding by the leading apothecaries in the public squares of major European cities in the presence of officials and dignitaries and under the supervision of the leading physicians of the local Collegium, are well known. (The reader is referred to Gilbert Watson's *Theriac and Mithridatium: A Study in Therapeutics*, London, 1966.) Tradition and authority — Galen included — were challenged and rejected. Moreover, these few scratches of a pen not only broke with the past, they also flew in the face of the learned medical faculties elsewhere. The Mithridatium

and Theriac remained official in the London Pharmacopoeia for 32 more years; in Paris the last ceremonial making of the Theriac took place in 1790; the pharmacopoeias of France, Spain, the Kingdom of Sardinia and Germany found a place for them well into the 19th century; the last vestige of these ancient remedies did not disappear from the Paris *Codex* until 1908.

There had, of course, been earlier criticisms of these polypharmaceuticals. The ascerbic Nicholas Culpeper, a century before the Edinburgh Pharmacopoeia took its action, had labelled them "terrible messes of altogether". John Quincy and later William Lewis, in their *Dispensatories*, spoke of them as "the only relics of ancient

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**ELECTUARIA.**

~~Sem. Coriandri femunciam.~~

~~Solutura expressio addo.~~

~~Mellis libras duas.~~

~~Coeque ad Syrupi spissioris crassitatem,~~

~~addo.~~

~~Pulpae Prunorum Damasc. libram un-~~

~~nam.~~

~~Caffee fistularis semilibram.~~

Misce, fiat Electuarium.

~~Mithridatium Democraticum.~~

R Myrrhæ,

Croc,

Agarici,

Zingiberi,

Cinnamomi,

Spice Nardi,

Thuris masculi,

Sem. Thlaspeos ana drachmas decem.

Sesileos,

Opobalsami, (vel Balsami Peruviani,)

Schoenanthi,

Flor. Stoechadis Arabicæ,

Costi, (vel Zedoariæ,)

Galbani,

Terebinthinæ Cypriæ,

Piperis longi,

Castorei,

Succi Hypocistidis,

-Styræ-

superstition that now remain among us", but nevertheless went on to describe them seriously and in some detail. The Edinburgh Pharmacopoeia of 1722, while not yet discarding the "venerable compositions", introduced an "elegant reformation" (the words are those of Lewis) called the Theriac Edinensis. It included a mere eleven ingredients but was to remain the Pharmacopoeia only until the issue of 1774.

It would be interesting to be able to trace the thought processes that were responsible for the expunging. Certainly of considerable influence must have been William Heberden's powerful castigation of the two in his *Antitheriaca: An Essay on Mithridatium and Theriaca* published in London in 1745. The Edinburgh College had had ample time to digest this work as they prepared for their fifth edition of 1756. The London College perhaps had not, for its fifth edition appeared in 1746, and, since its Pharmacopoeia was revised less frequently than that of Edinburgh, the elimination of the Theriacs had to await the sixth edition of 1788.

The discarding of the Mithridatium and the Theriac marked a milestone in the development of a more rational medicine and therapeutics. It also made

things much easier for the pharmacist — one is tempted to say that here was the beginning of a decreasing demand for the exercise of basic pharmaceutical skills. The ancient remedies had required considerable professional skill and knowledge. Eight of the ingredients in the Edinburgh formula for the Mithridatium called for measuring out ten drams of each; eight called for seven drams; nine called for five drams; four called for two and a half drams, and thirteen for one ounce. To these honey was to be added three times the weight of the powders, sufficient canary wine was to be added to dissolve the gums and juices, and all were to be mixed together to make an electuary, *secundum artem*. The pharmacists of Edinburgh were probably the first to be relieved of this tedious and demanding procedure, if they so chose.

#### Acknowledgement

Joan P.S. Ferguson, Librarian of the Royal College of Physicians of Edinburgh has been kind enough to cull out of the Minutes of the College the portions pertinent to 1756 revision and to send me copies of them.

<p>96. <b>ELECTUARIA.</b></p> <p>Styracis calamitæ,  Opopanacis,  Malabathri ana unciam unam,  Cassie lignæ,  Polii montani,  Piperis albi,  Fol. Scordii,  Sem. Dauci Cretici,  Carpobalsami, (vel Cubebarum),  Trochisc. Cypheos,  Bdelli ana drachmas septem,  Nardi Celticæ,  Gummi Arabici,  Sem. Petrofelin Ma  Opii,  Cardamomi minoris,  Sem. Fœniculi,  Rad. Gentianæ,  Rosarum rubrarum,  Dictamni Cretici ana  que.  Sem. Anisi,  Rad. Alari,  Acori veri,  Phu, (vel Vale  Sagapeni ana drachm  Rad. Mei,  Acacie veræ, (vel G  Ventr's Scinci,</p>	<p><b>ELECTUARIA.</b> 97</p> <p>Sem. Hyperici ana drachmas duas  semis.  Mellis despumati triplum ad pondus  pulverum.  Vini Canarini q. f.  ad solvenda gummi &amp; succos.  Misce, fiat Electuarium f. a.</p> <p><b>Electuarium Pectorale.</b></p> <p>R Conservæ Rosarum uncias duas.  Pulvis Distreggacanthi semunciam.  Florum Balastrum drachmam unam.  Syrapi Balsamici q. f.  ad solvenda gummi &amp; succos.  Misce, fiat Electuarium.</p> <p><b>Theriaca Andromachi.</b></p> <p>R Trochisc. Scilliticorum uncias sex.  Viperinorum,  Magmaris Hedychoi,  Piperis longi,  Opii ana uncias tres.  Rad. Iridis Illyricæ, (vel Florentinae),  Rosarum rubrarum,  Fol. Scordii,  Agarici,  Opobalsami, (vel Balsami Peruviani),  Succi Glycyrrhizæ,  Sem. Buniadis, seu Napi sylv.</p>	<p>98. <b>ELECTUARIA.</b></p> <p>Cinnamomi ana semunciam,  Myrrhæ,  Croc.  Zingiberi,  Rhapontici, (vel Rad. Tormentillæ),  Rad. Pentaphylli,  Fol. Calamintæ,  Marrubii,  Dictamni Cretici,  Flor. Stœchadis Arabicæ,  Schoenanthi,  Sem. Petrofelinæ Macedonicæ,  Colti, (vel Z  Terebinthinæ,  Thuris mascu  Piperis albi,  Nigri,  Cassie lignæ,  Nardi indicæ,  Polii Cretici,  Sem. Seseleos,  Anisi,  Amme  Arnica  Cardam  Fœnicu  Thlaspe  Rad. Gentianæ,  Mei,  Phu Po</p>	<p><b>ELECTUARIA.</b> 99</p> <p>Rad. Acori veri,  Fol. Chamædrys,  Chamæpitrys,  Hyperici,  Acacie veræ, (vel Germanicæ),  Carpobalsami, (vel Cubebarum),  Terræ Lemniæ, (vel Bolæ Armenicæ),  Chalcidis vitæ, (vel Vitis vitæ),  Styracis calamitæ,  Gummi Arabici,  Succi Hypocistides,  Nardi Celticæ,  Malabathri ana semunciam,  Summit. Centaurii minoris,  Sem. Dauci Cretici,  Rad. Aristolochiæ tenuis, (vel longæ),  Bituminis Judaici, (vel Succini),  Galban,  Opopasacis,  Sagapeni,  Castorei ana drachmas duas.  Mellis despumati triplum ad pondus  pulverum.  Vini Canarini q. f.  pro solvendis gummi &amp; succis.  Misce, fiat Electuarium f. a.</p> <p><b>Theriaca Edinensis.</b></p> <p>R Serpentina Virginia uncias sex.</p>
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Reproductions of the  
pertinent pages of the  
corrected 1744 edition.

# The Salerno Regimen and its Influence in England

By Leslie G. Matthews

The rise and decline of the general influence of the Salerno School of Medicine or of its widespread influence throughout Europe is widely known. The *Salernitan Questiones* that were evolved during the centuries and which cover almost every topic under the sun, were discussed by all Scholar-philosophers from the thirteenth to the fifteenth centuries. To what extent the *Questiones* affected various versions of the Regimen has not been much discussed at least not in England.

There are differing opinions of the purpose for which the Regimen was written: it is purely a domestic medicine book in the form of a poem of 362 lines: later versions up to 1000 lines are known. Some writers are of opinion that it was specially composed for Robert, son of William the Conqueror who also had the title of Duke of Normandy. Robert, his son, became Duke of Normandy when the Conqueror died in 1087 A.D. and his brother, William Rufus became King of England. In 1096 Robert, intending to take part in the Crusades, mortgaged his Dukedom of Normandy to his brother William Rufus who has been described as 'unscrupulous and a barbarian'.<sup>1</sup> Like many Crusaders, Robert stopped at Salerno on his way to the Holy Land and again on his return. Tradition says that Robert, who married in Salerno, hoped to get assistance in treating a poisoned wound. Many Crusaders sought help at the Salerno hospitals and its baths and profited from the reputed skill of its physicians, perhaps Robert among them. Although Robert acquired wealth and regained his Dukedom he never became King of England because his brother Henry I, who had succeeded William Rufus, would not give up the throne to him.

The opening lines of the Regimen clearly refer to the King of the English: 'Anglorum Regi cripsit schola tota Salerni' or in the modern Italian translation: 'Questo scrisse al re anglicano l'ateneo salernitano'<sup>2</sup> and there is a later reference to Kingship: 'A King that cannot rule him in his Diet will hardly rule his Realm in Quiet'.<sup>3</sup>

## Accepted date

The actual compilation of the Regimen has been attributed to Constantinus Africanus, secretary to Robert Guiscard the Norman who captured Salerno in 1075 A.D., and who brought together many translations of Greek and Arab books on medicine. Sir Alexander Croke (1758-1824) was of the opinion that the generally accepted date of the Regimen, the end of the eleventh century, fits in well with Duke Robert's stay in Salerno and that period could well have given rise to the early imitations of the Regimen that were current in Paris and Montpellier in the middle of the twelfth century.<sup>4</sup>

Arnold of Villanova (c. 1313), the earliest commentator on the Regimen, stated that it had been published by the Doctors of Salerno. A Paris edition of *L'Eschole de Salerno* of 1650, chez Jean Henault, by Martin, Doctor of Medicine, repeats the then current traditional origin that the Regimen was composed by Jean de Milan<sup>5</sup>. Some hundred differing manuscript copies of the Regimen are known and some

found their way to England. It is said that it was printed at least 30 times up to 1500 A.D.<sup>6</sup>

To come now to the spread of interest and influence of the Regimen in England: as soon as printed copies were in circulation, the earliest in England are of the year 1480, they were eagerly read. By 1528 the first English translation, by Thomas Paynell appeared, dedicated to the Earl of Oxford<sup>7</sup>. The author says the book teaches all people to govern themselves in health and is most helpful and necessary. There is a long introduction interspersed with biblical references and a commentary upon each section of the text. The popularity of this translation is shown by the repeated editions of 1530, 1535, 1541, 1547, 1575, and 1597. In the later editions there was some Tudor modernisation of the text, grammar and punctuation but essentially the book remained the same as the first edition of 1528.

## Enthusiastic publisher

It may have been Paynell's enthusiasm in repeatedly publishing his book or publication of the Latin version that caused other writers to make use of the Regimen. By 1550 several important English physicians and non-medical writers showed that they were familiar with the Salerno text, men like Andrew Boorde, Sir John Elyot and Dr. William Bulleyn.

Though Andrew Boorde (c. 1490-1549), a notable churchman and writer, made no direct mention of the Regimen in *A Compendyous Regyment: or A Dyetary of Helth* (London, 1542, 1547) he writes: 'Beware of surfeits... a meery heart and mind the which is in rest and quietness, without adversity... causeth a man to live long... let every man be merry', phraseology close to the text of the Regimen.

Sir Thomas Elyot, a layman, much concerned about his countrymen's welfare published *The Castel of Helth* in 1541. He makes it clear that what he writes on health matters is influenced by the Regimen. In introducing his book to the reader he writes: 'It seemeth that physick in this relam (of England) hath been well esteemed since the whole study (School) of Salerno, at the request of a King of England (meaning Robert, Duke of Normandy) wrote and set forth a compendious and profitable treatise, called the Government of Helath, in Latin, Regimen Sanitatis. Elyot says he was never at Montpellier, Padua of Salerno. His specific quotations are from the older classic medical authors.

Dr. William Bulleyn wrote many books, including the *Bulwarke of Defense against Sicknes* (London, 1652) and he had the Regimen in mind when he published *The Government of Health* in 1558. Bulleyn had an imaginary character who recovers from his disease thanks to the three good gentlemen who took no fees, i.e. Dr. Diet, Dr. Quiet, and Dr. Merryman. These three are mentioned in the Regimen, the 1958 Italian translation of which reads:

"Se non hai appresso/ Fersi medici a te spesso/  
Quanti tre: mente ognor lieta/ Dolce requie, a sobria  
dieta".<sup>2</sup>



Sir Francis Bacon in his *Essays Civil and Moral* (London 1597) had obviously read the Regimen, for his whole essay 'Of Regiment of Health' bears the marks of Salerno recommendations in his reference to diet, free (or quiet) mind and a cheerful disposition.

Corpus Christi College, Oxford, possesses a translation into English of the Regimen. This was made by William White in 1575 but never published.<sup>8</sup>

In 1584 Thomas Coghlan (or Cogan) brought out *The Haven of Health*, chiefly gathered as he said, for the comfort of students. This was a compilation but in the introduction Coghlan wrote: 'If they find whole sentences taken out of Maister Eliote his Castle of Helath, or out of Schola Salerna or anie other author whatsoever: they will not condemn me as if I meant to set forth for mine own works that which other men have devised, for I confess that I have taken *verbatim* out of others where it served my purpose, and especially out of Schola Salerna, but I have interlaced it with mine owne that (as I think) it may bee better perceived.' True to his promise Coghlan insets the quoted lines from the Latin text of the Regimen though his marginal references are useless, e.g. caput 30, because the particular Latin text used is not stated.

#### Often quoted

After the last of Thomas Paynell's editions, 1597, came the best known and the most often quoted of the English versions in rhyme, that by Sir John Harington. First published anonymously in London in 1607, this had the title: *The Englishmans Doctor: or, The Schoole of Salerne: or Physicall Observations for the Perfect Preserving of the Body of Man in continuall Health*. It was said by the printers that the author's name was not known but there are recommendations to the reader that could only have been written by Harington himself, for example, that the reader would take lessons from this School: it was a little Academy where every man may be a graduate and prove himself a Doctor in the ordering of his own body.

"Wit, Learning, Order, Elegance of Phrase, Health and the art to lengthen out our days. . . All this, and more than this, lies in this Book."

The final lines of the English text are:

"And you our Physick rules that friendly read, God grant that Physick you many never need."

(Harington was often seen in the Court of Queen Elizabeth I. He achieved some fame by his invention of that peculiar English piece of household equipment, the Water Closet but its usefulness was either forgotten or overlooked for a century.)

There was an immediate demand for a second edition of Harington's book and was printed in 1608 and in 1617. In that year also there appeared a distinctive new version, published anonymously but by Philemon Holland. Again, as in Harington's, there was an extended sub-title 'The Schoole of Salernes most learned and iudicious Directorie, or Methodical Instruction for the guide and governing the health of Men'. The book was dedicated to 'The High Mighty King (James I), and published' by consent of learned and skilfull physicians for the good and benefit of all in general'. The claim was made that all the Latin verses

were 'reduced' into English verse and put in order with a commentary, much like that of Thomas Paynell's, a century before, with marginal references to classic authors. Two further editions of Holland's version of the Regimen were published in 1634 and 1649.

#### A new attempt

Interest in the publication of any further English version of the Regimen seems to have died down until William Combe (or Coombe) brought out *The Oeconomy of Health* (London, c. 1780). The frontispiece shows Prince Robert receiving from John of Milan the poetical Regimen. This production was a new attempt at an English translation in verse by using an expurgated text. The author quotes Lord Bacon as saying: 'These instructions come home to every man's bosom.' 'There are some notes of explanation by the translator.'

We pass now to the nineteenth century and to an edition by Sir Alexander Croke (1758-1824) of the Regimen, published in 1830. Croke used the Latin text printed in Strasbourg in 1491 with Harington's translation in verse of 1607. Croke included his own views on the origin of the Regimen mentioned earlier in this paper.

Little, if anything, appears in English from this date, 1830, until 1922 when an historical account of the Regimen, again with Harington's translation was published in London. Under the title *The School of Salerno* this volume contains an historical essay by Francis R. Packard and a note on Salerno's pre-history by Fielding H. Garrison. Occasional articles on some aspects of the Regimen or its origin have been published in English journals during the past 20 years, an indication that there is some interest still in the Regimen though its influence is now minimal.

Three recent Italian editions and two Russian translations known.

First, that of 1957 published by the enterprising Ente Provinciale per il Turismo di Salerno. This book in English, with the title *The School of Salerno* gave extracts from Harington's rhymed version of 1607, quoted above. In the introduction the Ente Provinciale stated that it was hoped that this new edition "bought out for the English and American medical world and for the English and American public in general" would awaken fresh interest in a region which deserves to be much better known.

Second, the 1958 Latin and Italian versions in rhyme with the title *Regimen Salerno seu Flos Medicinae Salerni* by Ercole Ferraro, published in Milano by Edizione Stedar.

The third and most recent, was a translation into prose under the title *Regola Sanitatis Salernitana*, accompanied by a few illustrations of herbs by Bianca Romagnoli Gigliotto, published by the Napoleone Press in Rome, 1972.

In 1964 and in 1970 there were two Russian editions, both published in Moscow. The 1970 edition with the title *Arnole de Villanova Regimen Sanitatis Salerni ad notavit Versibusque* in Latin and Russian has numerous illustrations of early woodcuts. The Russian translation is by Julius Schulz who with Basilus Ternovsky wrote the Introduction. Published by Ex Officina Medicinale, Moscow, this volume contains notes in German on the principal editions of the Regimen and the title page reproduces the Basle edition of the Regimen of 1695.

## References:

1. Trevelyan, G.M. *History of England*. London 1954, 130
2. Ferro, Ercole. *Regimen Salernitano seu Flos Medicinae Salerni*. Milano: Ediz. Stedar 1950, nella traduzione del Cav. P Magenta del 1835.
3. Walker, Kenneth. *The Story of Medicine*. London, 1954, 17.
4. Croke, Alexander. *Regimen Sanitatis Salerni*. London, 1830.
5. Martini, Dr. of Medicine. *L'Eschola de Salerno*. Paris: chez Jean Henault, 1650.
6. Lawn, Brian. *The Salernitan Questions*. Oxford, 1963, 39.
7. Paynell (Paynel), Thomas. *Regimen Sanitatis Salerni*. London. 1528.
8. Packard, Francis R & Garrison, Fielding H. *The School of Salerno*. London. 1922.
9. Harington, Sir John. *The Englishman's Doctor* . . . London, 1607. Sir John Harington was born into a rich family. His father married one of Queen Elizabeth I's gentlewomen and the Queen was godmother to John. He was a wit and famed for his epigrams. To amuse the Court ladies he translated one of the more erotic stories in Orlando Furioso. The Queen affected to be shocked by this, saying that it was scandalous and improper for her ladies. As a punishment she ordered Harington to translate the whole of Orlando Furioso which he did. King James I appointed Harington a tutor to his son, Prince Henry.

# Marking Time The Structure of the Russian Calendar

By Robert C. Fayle

All historians share the same problem in common — “What IS the date?” What year was Rome founded (753 B.C.)? — When did Mahomet make his flight to Medina (622 A.D.)? — What was the year between 1 B.C. and 1 A.D. numbered? — When was the World created (Orthodox or Catholic)? — What is the “best” ZERO year for astronomers to use?

Russian history is made even more difficult by the numerous alterations to their calendar — including THREE different New Years Days!

The Ancient Slav calendars which had twelve lunar months, used names for these months in accordance with the weather conditions, or growth of plants, etc.<sup>1</sup> Suggested derivations for these Slav names are: - JANUARY — Cold, Blue sky; FEBRUARY — Frost (severe); MARCH — Birch blooms; APRIL — Flowers; MAY — Herbs turn green; JUNE — Cherry ripens; JULY — Lime flowers; AUGUST — Deer call; SEPTEMBER — Heather flowers; OCTOBER — Leaves fall; NOVEMBER — Frozen roads; DECEMBER — Cold.

In the latter part of the 10th century Russia adopted the ORTHODOX Church and received a chronology, adapted from the Roman (Julian), which started from the “Creation of the World” — which had been estimated to be in 5508 B.C.

From the 7th century up to 1492 their New Year began on March 1st — World Creation taking place on Friday, March 1st. But this was altered to September 1st in 1492, and this New Year Day was kept until Peter I decreed (19th December, 7208 — 1699), that the day after 31st December, 7280 (minus 5509 equals 1699) from the Creation of the World, would be counted 1st January, 1700 from the Birth of Christ. This day Peter considered to be the “FIRST” day of the New Century (yet another problem for the Historians? Should not the FIRST day of a new century be January 1st, 1701?)

To celebrate the “New” New Year Day, Peter I decreed a holiday, with the streets decorated, with extra lights, bell-ringing, cannon-firing and firework displays. Boxes of tar were set up on poles along the streets and squares of St. Petersburg (Leningrad), and made the town as light as day.

Celebrations continued — true to Russian traditions — all the remaining week. Peter gave permission for the Old Style (O.S.) to be used, in brackets, if desired.

The Russian (Julian) calendar continued to fall behind the “corrected” (Gregorian) calendar, until, by a decree of the Soviet of Peoples’ Commissars (25th January, 1918) the West European Calendar was adopted, and THIRTEEN days were dropped. The 31st January, 1918 was followed by the 14th February. The decree ordered that until 1st July, 1918, the O.S. date should be written in brackets after the date New Style.

Yet another complication is introduced here. For dates between the 1st March, 1900 and the 31st January, 1918, only TWELVE days should be deducted. This explains why Lenin’s birthday (10th April, 1870) is celebrated on the 22nd April, and the October Revolution (25th October, 1917) is celebrated by parades in the Red Square on 7th November.

With September 1st beginning the year, some peculiar effects arise. For instance, JANUARY & AUGUST 1650 come AFTER SEPTEMBER 1650: To calculate the “corrected year”, beginning March 1st (i.e. before 1492), 5507 is deducted for January and February — 5508 for all other months. For years beginning September 1st (i.e. after 1492), 5509 is deducted for September, October, November, and December — 5508 for all other months. EXAMPLES:

1st February, 6907 (A.M.) — deduct 5507 — 1400 A.D.  
1st February, 7008 (A.M.) — deduct 5508 — 1500 A.D.  
— AND the Russian Alphabet was NOT compiled by CYRIL — but by CONSTANTIN!<sup>2</sup>

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1. Istoria Kalendarya i Kronologiya. AUTHOR: S.I. Seleshnikov. PUB: 1970
2. Staroslavjanskii Yazik. AUTHOR: G.A. Khaburgayev. p.20 PUB: 1974. “Prosveshchenie” Kharkov.

# Bristol Apprentice Books

## The Status of Apothecary Apprentices' Fathers.

By F. H. Rawlings

The Bristol Apprentice Books, commenced in 1532, list the name, occupation and home town of most of the apprentices recorded. Parental occupations for apothecary apprentices of the 16th and 17th centuries are listed below. The records for each occupation are in column I and the numbers known to have practised as apothecaries in column II. As listed, cleric and clerk, are alternatives for the clergy.

The earlier records are unreliable. For the 17th century nearly 43 per cent of the apprentices subsequently practised as apothecaries. Six apprentices had their indentures cancelled, it is not known if any died during their apprenticeship. Twenty one commenced their apprenticeship as orphans, their fathers were deceased, of these seven practised as apothecaries.

Before setting up in practice it was customary to register as a Burgess and essential if intending to take apprentices. These records plus those who were apprentice masters but are not in the Burgess lists are included as practising apothecaries. There are no records of any who became assistants to apothecaries, these, of course were not required to register as Burgesses.

Some apprentices at the end of their time, moved away from Bristol and set up in practice elsewhere. One, George Davis apprenticed in 1594/5 did not become a burgess, in 1626 he was in practice in Usk and provided a bond for an apprentice to a Bristol tradesman.

The premium charged by an apprentice master would undoubtedly influence the social class of the prospective apprentice. There are few records in the books for these two centuries of the premiums paid, if any. Two in 1670 record a "clothier" paying £20 and a "gent" £100. Compare them with a 1667 ordinance of the Carpenters' Company that a master carpenter should not receive more than 2 shillings for a day extending from 5 or 6 a.m. to 7 p.m. with time allowed for breakfast and dinner.

Occupation	1532-1599		1600-1699	
	I	II	I	II
Agric.			1	
Armiger	1			
Apothecary			5	1
Baker			1	
Brewer			1	1
Butcher			2	2
Buttonmaker			1	1
Carpenter			1	
Cleric	2	1	8	6
Clerk	1		8	4
Clothier	1		7	3
Clothworker			1	
Cordwainer	1		4	2
Doctor			2	
(Medicus)				
Draper	1	1	1	1
Drayman			1	1
Dyer	2		2	1
Farmer			1	
Fuller			1	1
Gent	2		31	11
Glazier			1	
Grocer	1		2	1
Gunsmith			2	2
Haberdasher			1	
Hosier			2	
Husbandman	3		2	
Innkeeper			1	1
Leather Gilder			1	
Joiner			1	1
Malster			1	
Mariner			6	1
Mason			1	
Mercer	1		4	2
Mercator			4	2
Merchant			1	
Milliner			1	1
Pharmacopolo			7	4
Ruffman			1	
Sadler	1		1	
Sergemaker			1	1
Shearman			1	
Shoemaker	1	?	3	2
Surgeon			7	2
Tanner			2	
Taylor	1	?	4	1
Tobacconist			1	1
Vintner			2	1
Weaver	1		1	
Woodmonger			1	
Yeoman			23	12
Not stated	17	3	13	7



## Memorials to Apothecaries

Memorial to be found in the floor of the north aisle of Wymondham Abbey Church, Norfolk

WALTER CARVER

Apothecary

Died 5 October 1717

Aged 61 years

Also to the memory of his children

Ann, Mary, Elizabeth and John.

It is a tablet 4ft. by 6 ft. and is amongst many others of the Carver family.

The steep valleys of the River Severn and its tributaries were to see the birth of the modern iron industry in England. Iron spelt prosperity to the Salopian so it is perhaps not surprising to find many fine specimens of iron gravestones, as for example one at Bridgenorth St. Leonard's inscribed:

IN EXPECTATION  
OF THE SECOND COMING  
OF OVR SAVIOVR JESVS -  
CHRIST HERE LYETH -  
THE BODY OF MR CORNE-  
LVS ACTON LATE APO-  
THECARY IN THIS TO-  
WN WHO DEPARTED TH  
IS LIFE APRIL THE :9: 1701  
IN THE :40: YEARE OF HIS  
AGE - HERE ALSO LYETH  
THE BODY OF THOMAS HIS  
SVN HEE DEPARTED JAN  
VARY THE :15: 1695: IN  
THE :2: YEAR OF HIS AGE

At that period the letters V and U were interchangeable, and note also the curious and awkward manner in which words could be split.

Wall memorial in Sleaford, Lincolnshire, church.

"Dominus LOT MALE, pharmacopaeus  
insignis, chirurgis peritus, sanae Doctrinae et  
Ecclesiae verus Amator, Prohibitate eximius  
Egenis (dum vixerit) Dupliciter et Arte  
et opibus liberalis Qui obiit 24<sup>o</sup> die Sep Anno  
Dom. MDCCXVI 1716 aged LI 51"

It affords interesting proof that there was no artificial division of occupations in the practice of this man. The name is so unusual that one feels that he must have been

closely related to a Lott Mael of Spalding who took apprentices in February and March 1730. On one occasion he was described as a mercer, and on the other a 'woolendraper etc.'  
J.G.L.B.

## Letters

### Russian Pharmacy

My historical subject is the "History of Russian Pharmacy" about which I have collected an enormous volume of material. I have now virtually everything that is available, both in modern publications and in source works. If any Member would like information, I would be pleased to help. Majority of drugs and compounds used in the XVI - XVII century were from German or other West European Pharmacopoeias — most of their doctors were English or German (or educated at German Universities), many graduated at Leyden ("God makes the medicines — Leyden makes the doctors").

Pressure of work and family circumstances have prevented my greater involvement in the work of the Society - - with great regret! Robert C. Fayle

*Letters will be forwarded*

Members may also be interested to note that pharmacy in tsarist Russia is the theme explored in a special issue of *Pharmacy in History*. Dr Mary Schaeffer Conroy, of the Department of History at the University of Colorado at Denver, examines the practice of pharmacy in pre-Soviet Russia and compares the development of pharmacies in Russia with their counterparts in Europe, the United States, and Britain, and draws conclusions about how the vastness of the Russian empire and government regulation affected the education of pharmacists and the establishment of pharmacies throughout the empire.

Also considered is the pharmaceutical literature during this interesting period of Russian history.

A vivid glimpse into the life of a young pharmacist in Old Russia is offered in the second section of this special issue through reminiscences of the late Russian emigré to the USA, Isaiah Ginzburg (1875-1951). His recollections are preserved in a manuscript on deposit with the American Institute of the History of Pharmacy, which recounts his experiences as an apprentice, student, and community practitioner.

*Pharmacy in History*, No. 3, 1985, may be purchased (\$3.50) from:

American Institute of the History of Pharmacy, Pharmacy Building, 425 N. Charter St., Madison, Wisconsin 53706-1508. U.S.A.

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The production of this *Pharmaceutical Historian* is borne by



(Winthrop Pharmaceuticals) division of Sterling-Winthrop Group, Guildford, Surrey  
as a gesture to the history of pharmacy

Set and produced by Set Fair, 10-12 Gibbon Road, London SE15 2AS. Telephone 01-732 3841.



# PHARMACEUTICAL HISTORIAN

Vol. 15 No. 4  
December 1985 £1

Universitätsbibliothek  
der  
Technischen Universität  
Braunschweig

Newsletter of the BRITISH SOCIETY FOR THE HISTORY OF PHARMACY

Contributions to the Editor: Arthur Wright F.P.S., D.B.A. · 36 York Place · Edinburgh · EH1 3HU

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## Diary Dates

1986

**February 13,**

Joint meeting with the Pharmaceutical Society. Dr J.M. Stead, British Museum. "Lindour Man: An Iron Age Body from a Cheshire Bog".

**March 13**

Foundation Lecture: Dr Alex Sakula on "Asthma Cures, Ancient and Modern".

**April 11-13**

**Spring Conference, 1986** at the Maids Head Hotel, Norwich. Detailed programme to be announced later. Members wishing to contribute short papers at the Conference are asked to contact Dr Howden, at 36 York Place Edinburgh and provide details of proposed title and content.

### Annual Election of members of Committee

Members are reminded that nominations for the annual election should be submitted in writing to the secretary at 36 York Place, Edinburgh on or before February 1, 1986. Members due to retire in 1986 are: Mr G. Gunthorpe, Mr L. G. Matthews, (who does not seek re election), Mr J. E. Steane and Mr A. Wright.

### Sponsorship

At the recent meeting of the Committee it was unanimously agreed to place on record the Society's appreciation of all that Mr Bernard Hardisty and Winpharm organisation had so willingly and generously done for the Society during recent years. Unfortunately the sponsorship of the *Pharmaceutical Historian* has had to be withdrawn. The decision arises from the recent actions of the DHSS against the pharmaceutical industry. The Committee recognised that many company budgets had been affected.



*Portrait of Thackrah from the Leeds Medical School (see p.2.)*

### OBITUARY

**C. G. Drummond, FPS.**

As we go to press we are saddened to learn of the death of C. G. Drummond, of Bo Ness, in the Royal Infirmary, Edinburgh on December 10.

Although Charles Drummond was a specialist in the history of Scottish pharmacy and medicine, his knowledge extended beyond the borders and he readily gave of his experience to those who sought help.

His acceptance of the honour of presenting the BSHP Foundation Lecture last year was only given after some consideration and assurances from others that his work was of a high standard.

Whilst he leaves many written and published papers that have contributed greatly to pharmaceutical history, it is perhaps, the reconstructed pharmacy which he gave to the Pharmaceutical Society and is now at 36 York Place, that will be the instant visual reminder of his great interest.

Charles Drummond, however, was not only an historian, he spent his professional life in community pharmacy and his contributions in other spheres of his profession reflected his stature and erudition. His work for the Scottish Executive and his service on the Statutory Committee of the Pharmaceutical Society were recognised when he was awarded the Society's Charter Silver medal.

All members will regret his passing and many will miss his helpful guidance.

# Charles Turner Thackrah and Preventive Medicine\*

By Professor R.I. McCallum

For much of the period of recorded history the relationship between occupation and disease has either been ignored or overlooked or accepted as inevitable not only by employers but to a large extent by those who have suffered most, the workers. It is therefore all the more remarkable to go back more than a hundred years to consider the activities of a Leeds doctor, Charles Turner Thackrah, whose vision was ahead of his time and whose influence in the field of preventive medicine, particularly in relation to occupational disease has been prodigious. It is also interesting to look at Thackrah in relation to the changes which were taking place in the medical profession as a whole and which have resulted in the familiar structure of medicine as it has been for the last half century.

Charles Turner Thackrah was born in 1795 to a chemist and druggist in Leeds, George Thackrah. Charles' mother wanted him to enter the church and accordingly after attending two schools run by clergymen, he studied divinity. His education was deeply classical, involving the study of Latin and Greek, but at the same time wide. This enabled him to write a prize essay which he read to the Leeds Philosophical and Literary Society at the opening of their Hall in 1821. This essay was promptly published and has been said to represent an extraordinary range of knowledge for a man of 25 years of age.

Instead of the church Charles preferred medicine and became apprenticed at the age of 16 years to a Leeds surgeon and apothecary. This included a period of attendance at the Leeds Infirmary. Thackrah finished his apprenticeship in 1815, the year in which the Society of Apothecaries began legally to require that apprentices must produce attendance certificates for ward practice and lecture courses in medicine. Thackrah next became registered as a pupil at Guy's Hospital, at that time together with St. Thomas' Hospital, the major centre for teaching of medicine in London.

John Keats had registered as a pupil at Guy's two days before Thackrah and the lives of both of them were tragically shortened by the same disease, pulmonary tuberculosis. The most outstanding teacher at Guy's Hospital at this time was a disciple of John Hunter, Sir Astley Cooper, who lectured in anatomy and physiology at Guy's, and in surgery at St. Thomas'. Cooper's influence led to Thackrah's interest in anatomy and physiology and as a result to distinction as an outstanding student. He became a member of the Royal College of Surgeons of England in 1816 and obtained a certificate to practice from the Society of Apothecaries in the same year; he was then just 21 years of age.

At this time Thackrah was far from well and had to rest, but he returned to Leeds and set up in practice on his own early in 1817. He was also elected to the financially unrewarding post of town surgeon or parish doctor to the poor-law slum patients. Nevertheless, he was able to carry out experiments on blood which earned him a prize given by Astley Cooper to former students of Guy's and St. Thomas' Hospitals.

Thackrah's activities at this period included a report on lodging houses for the Leeds Workhouse Board which resulted in marked improvements in them, and the detection in conjunction with a chemist of a conspiracy to produce abortion by means of arsenic. He went on to give a course of popular lectures in physiology and to publish two books for the general public on physiology and diet.

In 1823 there occurs a curious episode which appears out of character and which at least temporarily damaged his reputation considerably. A friend's daughter whom he had attended for so-called dropsy, gave birth to a son and claimed that Thackrah was the father. The child was named after him and Thackrah left him £200 in his will. In the following year he married another lady by whom he subsequently had a daughter. Unfortunately, both mother and daughter died about 4 years later.

In 1826 Thackrah set up an anatomy school in Leeds and formed a museum in connection with it. He was unsuccessful however in persuading the Royal College of Surgeons of England to recognise the course as qualifying for their examination.

Thackrah's main claim to fame lies in two achievements which came at about the same time in 1831. These were his part in the foundation of the Leeds Medical School, and the publication of the book which has made his name familiar to many generations of doctors: "*The Effects of the Principal Arts Trades and Professions and of Civic States and Habits of Living on Health and Longevity: with a particular reference to The Trades and Manufacturers of Leeds; and suggestions for the removal of many of the agents, which produce disease, and shorten the duration of life*", by C. Turner Thackrah. This was first published in 1831, followed fairly rapidly the same year by an edition printed in Philadelphia. His book was very favourably received and for example was commended in a *Lancet* review.

A second edition "greatly enlarged", as it was described, was published in 1832 and this is the best known (fig 1). It was last reprinted in 1957 in a facsimile edition and accompanied by a scholarly biographical essay by the late Dr Andrew Meiklejohn who was then the Reader in Industrial Health in the University of Glasgow. Thackrah's writing is flowing and elaborate, following the study of the medical books of the time. However, the direct approach and detailed observations on a wide range of occupations make it interesting reading and overcome these deficiencies. He divided the subjects of his study into five classes, I Operatives, II Dealers (shopkeepers), III Master Manufacturers and Merchants, IV Men independent of business and labour, and V Professional Men.

In looking at these groups he is concerned with the air they breathe, their muscular activity, posture, the temperature and humidity, their diet and habits of life, and in some cases, state of mind. In relation to the first group, the operatives, he describes those who are active and work chiefly in the open air, such as husbandmen (agricultural workers) butchers and cattle drovers, fishmongers, stage coachmen, coopers, quarrymen, soldiers and so on. Each

\* Abstract from a paper given at the History Session, British Pharmaceutical Conference, Leeds, September 11.



occupation is viewed critically and the advantages and disadvantages for health are discussed, often rather fancifully by modern criteria. Consistently he tried to relate the illnesses he describes to particular causes and to suggest ways of preventing them. One is aware that at the time the technical means of doing this effectively were not available, and indeed for this reason much of the present day success in environmental control is very recent and in many cases is only just becoming successful.

Thackrah next deals with jobs which are done in a "confined and impure" atmosphere. He is well aware of the atmospheric pollution in towns from the use of coal fuel domestically and in factories. He points out that from the condition of the fleeces of sheep and other evidence the air 4 miles from the city of Leeds is polluted. On the other hand, he considers that certain impurities in the air may be beneficial, for example the ammoniacal stench in glue and size boiling, soap boiling, and tanning. In this group of workers he also describes the unhealthy posture of tailors and of milliners and dressmakers, upholsterers and shoemakers, weavers and other cloth workers.

Thackrah recorded the harmful effects of dust from working with stone and the short life span of masons and coal miners, what we now recognise as silicosis and other forms of pneumoconiosis. Mercury and lead poisoning of a type no longer seen, are described and make interesting reading now. Chemists and druggists he says are exposed to harmful gases in laboratories, are frequently sickly in appearance and often consumptive.

He refers to skin disease due to various jobs, including scrotal cancer in chimney sweeps first described by Percivall Pott in 1775. "Surely this shocking and unnatural occupation ought to be abolished" is Thackrah's comment. From time to time the approach is statistical though by modern epidemiological criteria somewhat inadequate.

Dealers or shopkeepers he criticises for taking too little exercise and drinking too much alcohol. He has similar comments on merchants and master manufacturers but adds overwork and avarice. He recommends slow eating and an hour's rest after dinner for this group. With regard to the independent man, the gentleman as opposed to the workers, he says "A man without an object, is like a tree without a leading shoot". Gluttony is a problem for them. Finally, the professional men, those who work with the mind, architects, ministers of religion, medical practitioners, clerks, scholars and students, and lawyers are considered. "Clergymen who preach long, frequently or with vehemence . . . are subject to pains in the chest, diseases of the larynx, oedema of the glottis and spitting of blood."

Thackrah criticises lack of exercise in girls and in particular the use of tight stays in constricting the thorax. He refers to the use of what he calls a pulmometer to measure pulmonary ventilation in men and women, illustrating his scientific approach to medicine. Students he includes amongst people "who live in a confined atmosphere, maintain one position for most of the day, take little exercise and are frequently under the excitement of ambition." Amongst many other symptoms the brain is affected. But Thackrah goes on to dwell at length on the control of life style which he thinks will maintain health: limitation of the duration of study, muscular exercise, regular meals, temperate use of tea, coffee and alcohol.

**THE EFFECTS**  
OF  
**ARTS, TRADES, AND PROFESSIONS,**  
AND OF CIVIC STATES  
AND  
**HABITS OF LIVING,**  
**ON HEALTH AND LONGEVITY:**  
WITH  
**SUGGESTIONS**  
FOR THE  
REMOVAL OF MANY OF THE AGENTS WHICH PRODUCE DISEASE,  
AND SHORTEN THE DURATION OF LIFE.

By C. TURNER THACKRAH, Esq.

SECOND EDITION, GREATLY ENLARGED.

LONDON:  
LONGMAN, REES, ORME, BROWN, GREEN, & LONGMAN;  
SPINKIN & MARSHALL.  
LEEDS: BAINES AND NEWSOME.

1832.

*Fig 1 Frontispice to Thackrah's second and enlarged edition of his book.*

It is worth looking at the historical background to Thackrah's professional career which spanned the period between 1815 and 1833. The decisive period of the industrial revolution had been the last half of the 18th century which the developing scientific knowledge was applied to manufacturing. The steam engine had been improved, machinery introduced to the cotton industry and the iron industry had turned to coal instead of charcoal. Cottage industries gave way to factories and industrial towns developed. These centres of manufacture dissociated from the surrounding countryside stimulated a mass movement of people into them. Amongst the consequential developments were profound differences in status of men in relation to masters, the employment of women and children, often paupers, in factories and mines; excessive hours of work, slum factories, exploitation at work and overcrowding at home. By the middle of the 19th century half the population of the United Kingdom had become urban. In spite of this and on the positive side the population had increased to nearly double its previous figure by the end of the 18th century due to a fall in the death rate. More food and clothing were available though very unevenly distributed, and living standards had risen.

A further factor was the emergence of the medical profession to full social recognition at this time. Previously only a limited number of physicians had been given status, that of surgeons and apothecaries being more akin to tradesmen. By the beginning of the 19th century these traditional divisions had begun to break down alongside the other widespread social changes that were taking place. The modern general practitioner was beginning to emerge with a diploma from the College of Surgeons or Society of Apothecaries. In 1832 the Provincial Medical and Surgical Association was founded, now better known as the British Medical Association.

Thackrah's name is perpetuated as one of the founders of the Leeds Medical School (and in an annual lecture which was initiated only 3 years ago) but much more widely in the inspiration generated by his classic book on the effects of work on health and particularly in the preventive approach embodied in its long title "... with suggestions for the removal of many of the agents which produce disease, and shorten the duration of life." Thackrah's approach to the health of working people was a balanced one: not everything was due to their working conditions. "The great bane of civilised life is intemperance ..." he wrote, and went into great detail of the effects of alcohol on men, women and children; fresh air, bathing (a cold or tepid bath twice or thrice a week is recommended, and a warm bath in the evening if fatigued); exercises including dancing: "In each family ... there should be an hour or two's dancing every night". His advice to masters to promote games in the open air on a summer's evening and to provide a room in the mill or workhouses for dancing in the winter echoes the ideas of modern Japanese employers in an extraordinary way.

A portrait of Thackrah (Page 1) by an unknown artist was presented to the Leeds Medical School in 1937 by the Rev. Robert Whytehead whose father had been an apprentice of Thackrah. The painting was probably done when Thackrah was between 25-30 years of age (Meiklejohn, 1957).

Thackrah died of pulmonary tuberculosis, the immediate and contributory cause of which are known and for which a cure by means of a range of potent drugs has now been achieved. However even before streptomycin became available it is apparent that preventive measures which included better nutrition, better housing, less overcrowding, and segregation of the infectious patient had begun to improve mortality from the disease. Chemotherapy provided the final solution so that while it is still with us it has become a rare disease.

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#### Acknowledgement

I am indebted to Dr. R Alpin for help with background material for this paper.

## Apprenticeship Gleanings

By J. G. L. Burnby

"October 1717. William son of Francis Salmon of Gosport, Doctor, was apprenticed to George Badger, citizen and apothecary of London, for 8 years. Premium £60."

Here are two names which were famous, some would say notorious, in the medical world of the late 17th. and early 18th. centuries, Young William Salmon must assuredly have been the nephew of the William Salmon of Blackfriars who proclaimed himself to be "physition and surgeon" but others dubbed quack. In his will dated 30 November 1711, the older man bequeathed to his "brother Francis Salmon of Gosport, physician, £1,000 from the sale of my library by auction."

William Kirkby tells us that in the year that Salmon died (1713) a T. Ballard compiled a catalogue of his library which comprised several thousand books and pamphlets. Salmon also possessed two microscopes, a collection of mathematical instruments and an assortment of curiosities from the West Indies.<sup>3</sup> It is very likely that Salmon, before he settled down in London in 1671 when he was 27, had been a ship's surgeon. In his fine herbal *Botanologia* published in 1710, he refers to plants which he had seen in Carolina. It is possible that the William Salmon, chirurgion, who was admitted to the London Company of Barber-Surgeons on 4 September 1694 as a foreign brother is our man.<sup>4</sup> Although many appear to have practised their craft without the blessing of a company, especially if they worked outside the confines of the City, Salmon may have decided that it would be politic to regularise his position at a late date.

His will was proved by sentence on 22 April 1713 which indicates that there was some dispute in the granting of probate. This would not be surprising as his will relates that he had quarrelled bitterly with his wife some eight years earlier and that he left her a mere £50. Eleanor Gray, daughter of Andrew Gray of Billericay, Essex, was made sole executrix. She received two gold watches, chains and seals, a gold quill case, all the silver plate, medals, pictures, a small private library, household goods and clocks (one of which had been made for William III) and the lease of his dwelling house.

As for the younger William Salmon's apprenticeship, George Badger, one cannot but wonder if he was related to the John Badger who was treated so shabbily by the physicians of the London College, and even by some of his fellow apothecaries. John Badger hailed from Winchester in the same county as was very probably the childhood home of William Salmon.<sup>5</sup>

Two men have been the subjects of short notes in the *Pharmaceutical Historian*, John Jones and Samuel Yorke. In Volume II, number 1 (April 1981) a description was given of a pilgrimage to Myddfai, near Llandovery which had been made to see the traditional home of the far famed physicians. In the porch of the church is to be seen the tombstone of John Jones, surgeon, who died 25 November 1739, aged 43, claimed to be the last of the lineal descendants of Einion one of three physicians. Indeed it is said by some that it was he who compiled the second half of the *Meddygon Myddveu*.

Whether there is any substance in these stories or not, it is interesting to note that in December 1721 John Jones, surgeon of Mothvey (the anglicised version of the Welsh name) took an apprentice, Richard Jenkins by name son of Peter of Mount Brave, Brecon, gentleman.<sup>6</sup> The father paid a premium of £42 and the period of apprenticeship was the usual seven years. Did John Jones pass on to his apprentice the knowledge which he said to have inherited from the Middle Ages? If he did then Richard Jenkins was truly the last to receive it directly, because Richard does not appear to have taken any apprentices himself.

In the same *Pharmaceutical Historian* there was a plea for further information about a Samuel Yorke apothecary at Kegworth, of whom John Nichols related that he was the brother of Sir William Yorke, one of the justices of the Common Pleas and Chancellor of the Exchequer in 1761. It has been discovered that Samuel Yorke took John son of John Campion as his apprentice for seven years dating from 1 August 1744 and for consideration money received £52.<sup>7</sup> Samuel Yorke was still practising in 1779 when he is found to be listed as a surgeon and apothecary and called Dr Yorke in the *Medical Directory* of that year.

That apprenticeships did not always run smoothly can be readily guessed. At the Quarter Sessions held at Hicks Hall in September 1750, John Horwood was discharged from his apprenticeship with Emmanuel Gibollet, surgeon and apothecary of Poplar. The petitioner had alleged that "his master had beaten him with a horse whip in a barbarous manner, especially last March about four in the afternoon, when he ordered the petitioner to go from the shop at Poplar to Hackney and then to Goodman's Fields. The petitioner said he was incapable of walking so far at that time of night. He also said that sometime in April last, a person afflicted with fits was bloodied by his master and that the petitioner had neglected to throw away the blood, and that the next day his master forced open his mouth with his fingers and poured a quantity of the serum into his mouth."<sup>8</sup>

George Horwood the father of the apprentice had paid Emmanuel Gibollet a £25 premium for his son to have an eight year apprenticeship in the summer of 1749. There are no records of Gibollet taking any other apprentices.<sup>9</sup>

A similar case in some respects occurred in February 1751 when William Rooke was discharged from his apprenticeship to James Woolsey, surgeon of London (but of the parish of St. George in the East, Middlesex.) The petitioner alleged that his time had been more employed in making candles than learning surgery, and his master had severely beaten him "for not weighing the tallow as it came in and the greaves and dross thereof as it went out, so that he might know what he gained by making his own candles duty free; and once for having lighted two candles at an early hour in the morning (it being very dark) his master most unmercifully horsewhipped him, and at other times without apparent reason had so cruelly beaten him with his fists as to stun him and cause him to despair of his life."

Woolsey had to refund half of the £21 that Isabella Rooke the widowed mother of William had paid for the apprenticeship, so that the boy could be apprenticed to another master.<sup>10</sup> No record of this apprenticeship of Rooke to Woolsey has been found, nor any subsequent one of either apprentice or master. Woolsey's apparent obsession with candles was due

to an Act of Parliament in 1709 which imposed a tax on candles, and what was more, banned the making of candles at home unless a licence was purchased.

There was too another side to the coin. In September 1750 John Justamond of St Giles Fields, apothecary, was discharged from his apprentice, James Town. The court found that Town had embezzled his master's goods, lain out of his house at night and frequently been drunk. Justamond agreed to refund £10 out of the £45 premium to defray the charge of "carrying" Town to his father's house in Northampton.<sup>11</sup>

Full details of this apprenticeship had been furnished by Justamond to the Inland Revenue authorities and the tax due rendered in 1747. Justamond had had two other apprentices earlier, Ralph Jackson in 1738 and Daniel Dorset in 1743.<sup>12</sup>

The last case relates to a man well known to pharmaceutical historians. Morris Clutton of St Andrew's, apothecary, was discharged from his apprentice Henry Seale, son of Henry Seale late of Witney, Oxfordshire, deceased. "The petitioner set forth that relying on the integrity of his apprentice, he had from time to time, entrusted him to receive money at his shop and with the keys of the till or drawer where the money was kept, having reason to be suspicious, he detected the said Henry Seale taking from the till the sum of one guinea and a five shilling piece. . . and upon his confession that he had for several months been abstracting money from the till, he was committed to Bridewell."<sup>13</sup>

Clutton's behaviour was somewhat unusual for a Quaker, as they were reputedly averse to bringing cases against people who had fallen to temptation. Further more his own activities are not above approach as this apprenticeship had not been registered with the Inland Revenue and no tax on the premium had been made.

The older Henry Seale who had been the son of yet another Henry Seale and who came from Burford, Oxfordshire had been apprenticed in the summer of 1719 to Thomas Bracey, surgeon of Witney for seven years. Premium £40.<sup>14</sup>

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# Pharmacy and Medicine in the University of Leeds\*

By Professor D.R. Wood

At about the time of the last visit of the British Pharmaceutical Conference to Leeds in 1970 two unrelated changes in educational matters were about to happen. One was the ending of the arrangements for a degree in pharmacy at Leeds and the other a large expansion in the size of the medical school.

A School of Medicine had been established on a private basis in Leeds in 1831 in extension of the private school of anatomy that C T Thrackrah had started 5 years before. It flourished and in 1884 joined with the Yorkshire College of which it then became the Medical Department with Dr. Thomas Scattergood as Dean. Up to that time students had been prepared for the examinations of "other bodies" and it was not until the incorporation of the Yorkshire College as a constituent of the Victoria University of Manchester in 1887 that Leeds students became eligible for the MB. When, in 1904, the University of Leeds achieved its independent charter it became a licensing body in its own right and medical students were eligible for the award of the degrees of Bachelor of Medicine and Bachelor of Surgery (MB ChB) of the University of Leeds.

At that time the Medical School building recently completed in Thoresby Place was intended for an annual intake of 80 medical students — based on the current curriculum.

That nominal capacity was soon outgrown largely because of the spread of teaching both in the range of subjects and in its extension to include students on other courses. These needs were met for many years by additional space in new or adapted accommodation for developments such as those in pathological subjects and in dentistry — a dental school and hospital being built on an adjacent site and opened in 1928.

After the 1939-45 war student members were soon up to the 80 level but there was great pressure on space for teaching and little available for research. In 1967 the Vice-Chancellor, Sir Roger Stevens, announced details of an interim building scheme by which the student intake would rise from 80 to 130 by 1970. "The plan will not affect long-term proposals for a new medical centre integrated with the proposed new Leeds General Infirmary, which was no less pressingly required than before but whose development depended upon the complete rebuilding of the Infirmary". (*Times*, 14 April 1977).

That prediction was fulfilled and at about the time of the Conference in 1970 the admissions officer was completing the UCCA process which in that year resulted in taking in 124 students, 88 men and 36 women.

The decision to discontinue the pharmacy degree scheme at Leeds had been taken in the mid-1960's and so by June 1970 the last student on the 3 year honours scheme had graduated. This was a great disappointment to several people, not least those loyal members of the staff who had helped to sustain the course particularly after it had achieved the status of a well-respected, though small contribution to pharmacy and pharmacology in 1952 when the degree scheme allowed its award "with honours".

\* Abstract from a paper given at the History Session, British Pharmaceutical Conference, Leeds, September 11.

Support for the inclusion of that school within the University had come quite strongly from the Pharmaceutical Society on two occasions — once in 1920 and again in 1931. So it must have been especially distressing that the Society, moving no doubt with the times on this occasion saw the continuation of the Leeds school as being difficult to defend alongside the very much larger provision at Bradford, now itself a University awarding its own degrees, with both institutions subject to the scrutiny of the UGC.

The rationalisation of small departments is now again a significant topic and a similar fate to that of pharmacy at Leeds in 1970 is likely to become a more frequent accompaniment of the squeeze on University resources.

Peculiarly, I have had a part in both these happenings at Leeds — in the expansion of the medical school and in the demise of pharmacy. As Professor of Pharmacology from 1960 I took over the responsibility for the pharmacy school from W A Bain. He it was who had nurtured and strengthened the teaching of pharmacy soon after its incorporation into the University in 1933 when the private Leeds College of Pharmacy was taken over.

Until late in the last century pharmaceutical education had been organised in Leeds under the aegis of the Leeds Chemists Association which held appropriate classes for those intending to seek admission to the recognised diplomas.

Of the likely requirements it seemed that classes in chemistry and botany and physics might well have been available in the College and when F W Branson enquired in June 1891 whether the Medical department could assist, a small group (apparently a favoured method of academic discussion even in those days) of Professor Smithells, Dr. Barrs and the Dean recommended to the Board that a course of 20 lectures on *materia medica* might well be given under its aegis by the Demonstrator of Practical Pharmacy to medical students. Branson himself held that part-time post until about 1898.

Mention of Branson recalls the partnership of Reynolds and Branson, a firm that continued trading under that name including the regular supply of laboratory chemicals and glassware to medical school departments into the 1960's. 100 years earlier Richard Reynolds was associated with the teaching of chemistry and *materia medica* in the School of Medicine. He became joint honorary secretary of the Board of Governors of the Yorkshire College of Science in 1874 and nine years later took part in the negotiations that preceded the amalgamation of that College and the Medical School in 1884.

Returning to the developments in pharmacy teaching, it was in 1898 that F Pilkington Sargeant, later to become Vice President of the Pharmaceutical Society and President of the North Eastern Federation of Pharmacists, opened the Leeds College of Pharmacy as a private venture. His classes for the Society's major and minor examinations were initially held at 19 Springfield Place.

By 1900 attendances at the college's full-time and evening classes were such that it had to move to larger premises in Clarendon Road.

It appears that the approach to the Yorkshire College had not been as successful as had been expected!

Soon after the end of the 1914-18 war there were further overtures to the medical school to consider setting up a school of pharmacy — linked with the prospective buying-out of Pilkington Sergeant's private college.

In the summer of 1920 a resolution of the Board of the Faculty of Medicine approving the establishment of a School of Pharmacy in the University was reported to the Society. The letter to Major E Savill Peck was signed by the same Professor Arthur Smithells (Chemistry) who was one of the trio that had wished to support pharmacy teaching in 1891.

Hopes were soon disappointed. In December 1920 the University Council's decision was conveyed to the Society by the Registrar of the University. "The University Council regrets it is unable at the present time to embark upon any extension of the provision already made in the University for this branch of teaching".

Later references suggested that the lack of success at that time may have hinged at least in part on the failure to reach a suitable financial arrangement with Mr. Sergeant.

Pilkington Sergeant's school was the only one in the whole of Yorkshire recognised for part 2 of the curriculum. Bradford Technical College was seeking similar recognition. It was probably even then a larger school.

The next stage in the attempt to introduce Pharmacy to Leeds University came in 1931. The medical school had celebrated its centenary and among its guests were senior officers of the Society. They clearly received the impression that it might now be possible to resume, with some prospect of success, negotiations for the absorption of the Leeds College of Pharmacy by the University.

In a letter from Hugh Linstead, Secretary, it was proposed that the President, Major Peck and the Secretary should meet the Dean (of Medicine) in Leeds on 24 July or alternatively that he might come to Manchester as a guest of the Society at the banquet in the Midland Hotel during the BP conference in the week before.

The meeting is recorded as having taken place on July 24 in Leeds so it appears that the Society's entertaining suggestion could not be taken up. The Dean of Medicine (Professor J K Jamieson, and the Registrar of the University (A E Wheeler) were among those present. The hope was that the College and its existing diploma courses would be absorbed, including the then Principal Mr. Lupton. The Society was clearly anxious that there should be an express intention to move towards a degree course and Mr. Linstead had the authority of the Council of the Society to proceed with negotiations.

Events moved slowly. In January 1933 the Council of the University appointed a powerful committee to consider whether the University should undertake the training of students preparing for the examinations of the Pharmaceutical Society. It had 17 members, nominally including the Pro-Chancellor. It met on 3 February 1933 with the Vice-Chancellor (Sir James Baillie) as chairman and recommended that the University should take over the course for the diplomas, and that Mr. A W Lupton would be responsible within the department of Physiology, as a lecturer, for the professional training of the pharmacy

students, their work in pure science, pharmacology and materia medica being provided by existing University staff.

There was to be a limitation of numbers and the hope that "opportunities might be secured for the development of pharmaceutical research".

As if prompted, in a letter of 16 February 1933 Linstead wrote to the Registrar of the University asking it to "consider the establishment of a department of pharmacy to provide instruction for the Chemist and Druggist and Pharmaceutical Chemist qualifying examinations" and also for a degree in pharmacy, which might perhaps at first be the external degree of B.Pharm. London.

Further discussion went on in the University about the details and in particular about a possible degree scheme in due course and a joint meeting at which Mr. Lupton and Mr. Linstead were present looked at further details later in March 1933.

News of the proposal evoked serious protest from Bradford and Leeds Technical Colleges.

Perhaps to indicate an anxiety to make progress, the University invited the Society to consider recognition of a proposed Diploma in Pharmacy at Leeds but not surprisingly the Society did not wish to pursue this.

So the College was absorbed and the teaching of the basic sciences and the physiology including biochemistry and pharmacology, were done by the teachers in these subjects with Mr. Lupton teaching pharmaceuticals, pharmaceutical chemistry and pharmacognosy to students for the recognised diplomas.

Bain records in a note in 1953 that the degree scheme which he had done so much to justify and establish, was finally approved in 1943.

As the degree scheme got under way so the diploma courses were abandoned by 1947. A W Lupton who had become senior lecturer and had covered a wide range of teaching on the pharmacy course with the help of one junior assistant, died in that year after long and devoted service to his profession.

To assist with the pharmacy teaching in 1946-7 when it achieved degree status, Bain had appointed J G Dare, P Hey and G A Nelson as lecturers in pharmaceuticals, pharmacological chemistry and pharmacognosy. George Nelson had in fact qualified with the Chemist and Druggist diploma from the Leeds College of Pharmacy in 1924, then becoming lecturer in botany and pharmacognosy there. He qualified Ph.C a year later being awarded the Herbarium bronze medal of the Society. His return to teaching in 1946 followed a successful career in pharmacy practice. He was a man of many talents. P B Dews and J L Broadbent were lecturer and demonstrator in pharmacology. They were an excellent team of teachers with high standards of professional excellence. Postgraduate work was encouraged and facilities were greatly improved after some structural alterations and new equipment provided with a grant from the Wellcome Trust — the new laboratories being opened by H H Dale in 1955.

Bain recalls that pharmacy and pharmacology (including the medical and dental teaching) were done in 1943 by himself as reader (also teaching physiology), a senior lecturer (Mr.

Lupton) an assistant in pharmacy and 2 laboratory attendants. By 1953 the department comprised a professor, six lecturers, a demonstrator, 3 research assistants, a Secretary, a senior technician, and 4 laboratory attendants. Bain was an enthusiast with a special interest in the quantitative approach to experimental problems using man for study whenever possible.

Further changes in the laboratory facilities were made so that radioisotopic work could be greatly extended and some alterations improved the old pilot plant pharmaceuticals laboratory in the basement. Research activity, with some sponsorship from pharmaceutical industry, was extended in pharmaceuticals and in chemistry.

The factors leading up to the questioning of the continuation of the degree scheme at Leeds are still not entirely clear to me. That such an event was not earlier in mind is supported by the recognition afforded to the discipline when in 1963 Ronnie Kaye was appointed Head of the Division of Pharmacy within the Department of Pharmacology — considered at least by me to be one step short of a separate recognition.

Certainly we were aware of the Society's wish to maintain and improve the professional education and training of pharmacists and to extend their role in keeping with the changing emphases in retail and hospital pharmacy. On those grounds it did not appear that the Leeds school could be found wanting.

It was certainly true that the school was small and intentionally so, for the objectives identified by Bain at the time were likely to be less easily sustainable in a large school.

Whatever the circumstances the proposals were particularly painful for those members of staff with a long and productive commitment to their special subjects.

Of the people who contributed greatly to the Pharmacy degree scheme in my time George Nelson, Ronnie Kaye and Ted Clark deserve high praise for their dedicated teaching and research, supported by the pharmacologists among whom George Moge played a major role. Of the graduates of the school in its short but distinguished life as a graduate honours school it is invidious to mention names but there are included at least one FRS, several heads of academic or industrial departments or schools and at least one DSc. Perhaps they were well-selected — they certainly do credit to their school.

If for pharmacy the record may be seen as one of achievement now fading, it is to be hoped that in medicine the past and the prospect are brighter.

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## Trade Ceramics

"A Household Name" is the title of an exhibition organised by the Royal Doulton International Collectors' Club at the Club gallery, Leather and Snook, 167 Piccadilly, London, until February 28. The exhibition contains over 300 items of commissioned advertising ware and is open from 9.30 am to 5.30 pm, Monday to Friday.

## On Show

The Presidents' badge, given to the Society by the Wellcome Foundation in 1983, has been included in an exhibition at the Victoria and Albert museum, London, featuring the work of the designer, Dr Kevin Coates. The exhibition is in the jewellery section of the museum and is open until January 9 1986.

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